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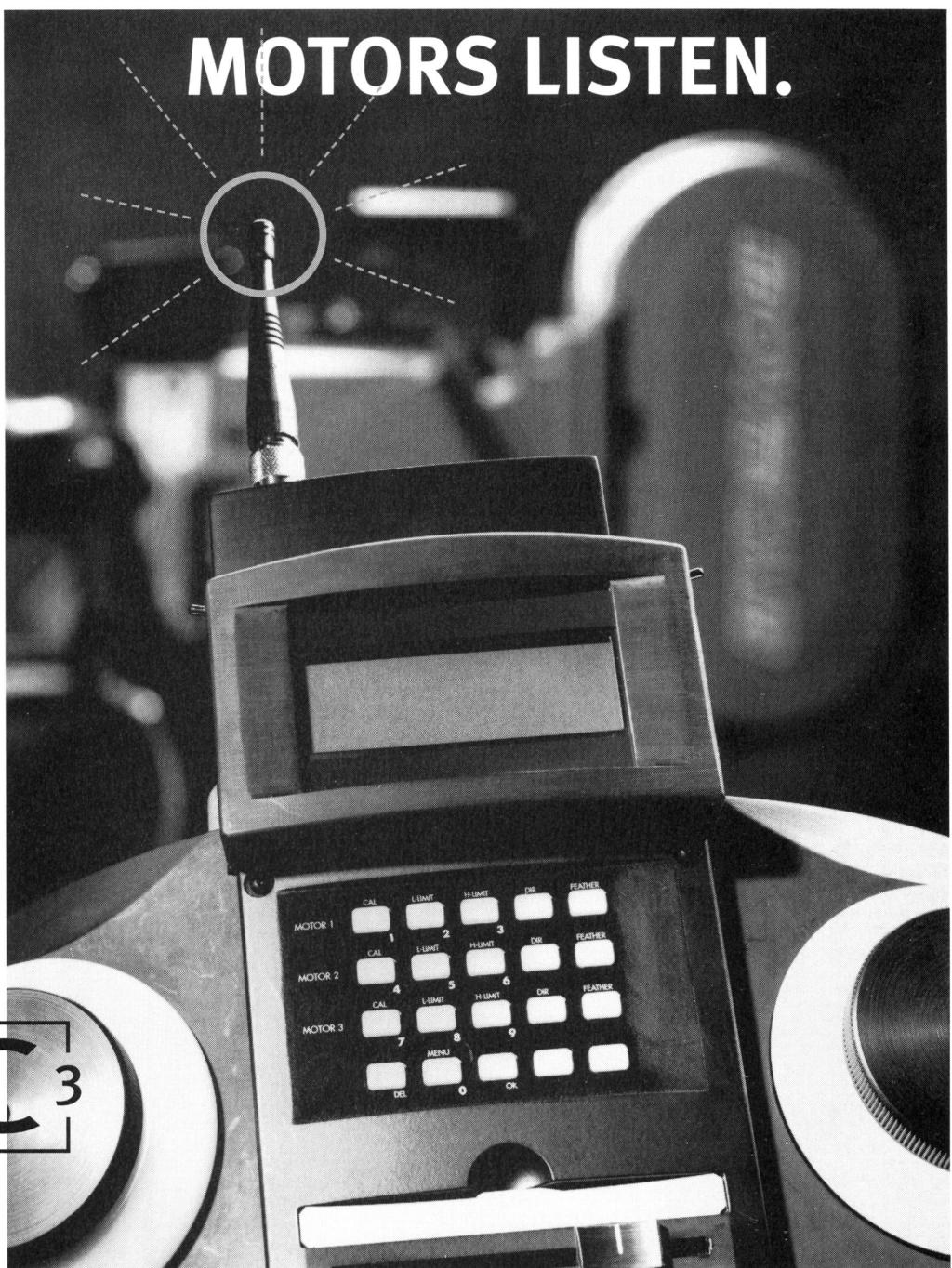
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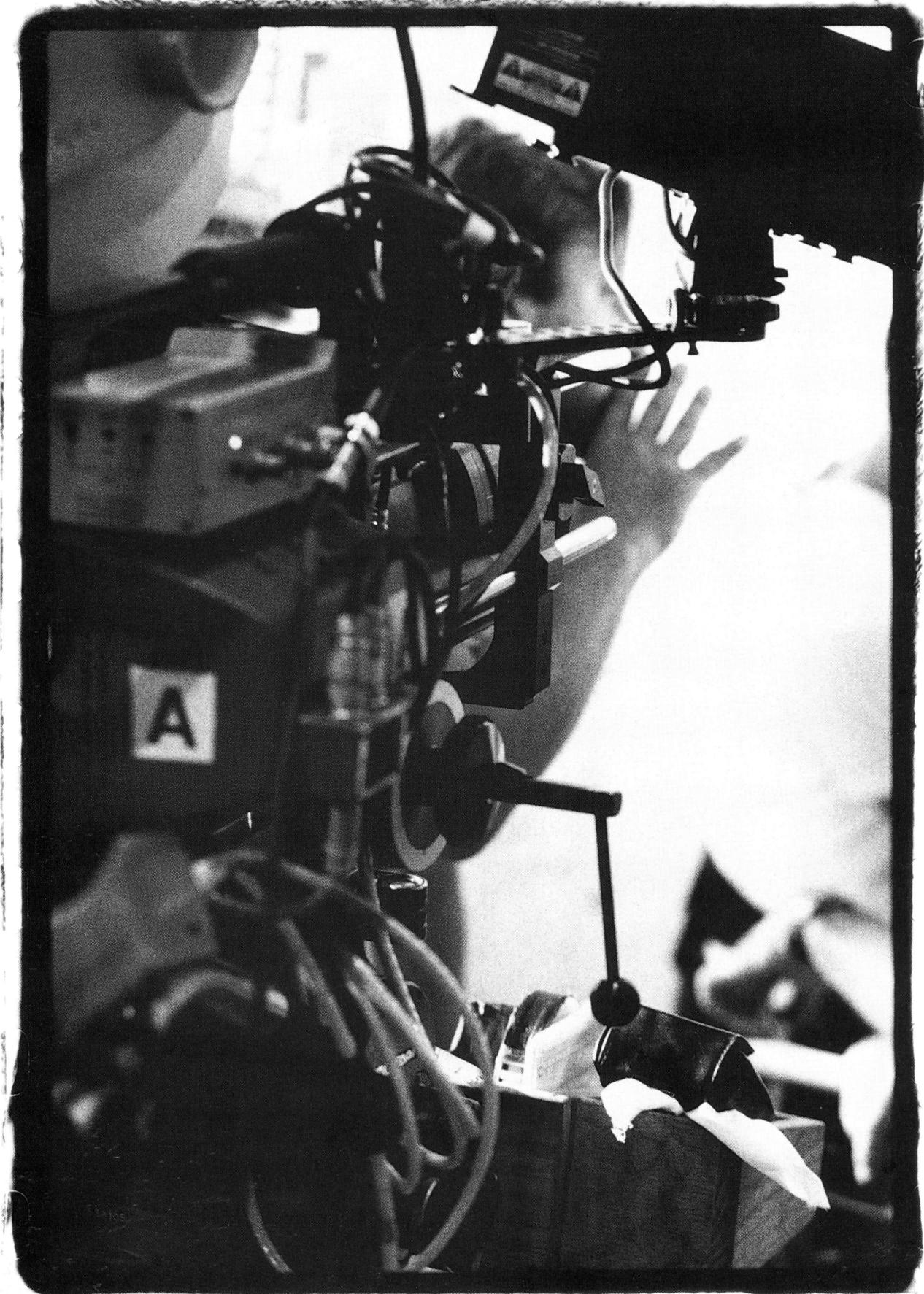
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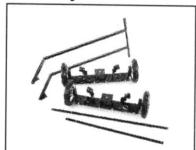
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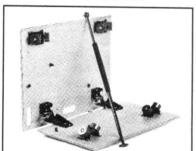
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On Our Cover: An alien opera diva (Maiwenn Lebesco) sings her siren song aboard an orbiting "pleasure ship" in the sci-fi epic *The Fifth Element*, directed by Luc Besson and photographed by Thierry Arbogast, AFC (photo by Jack English).

Contributing Authors: Christopher Probst, Brandon Wilson



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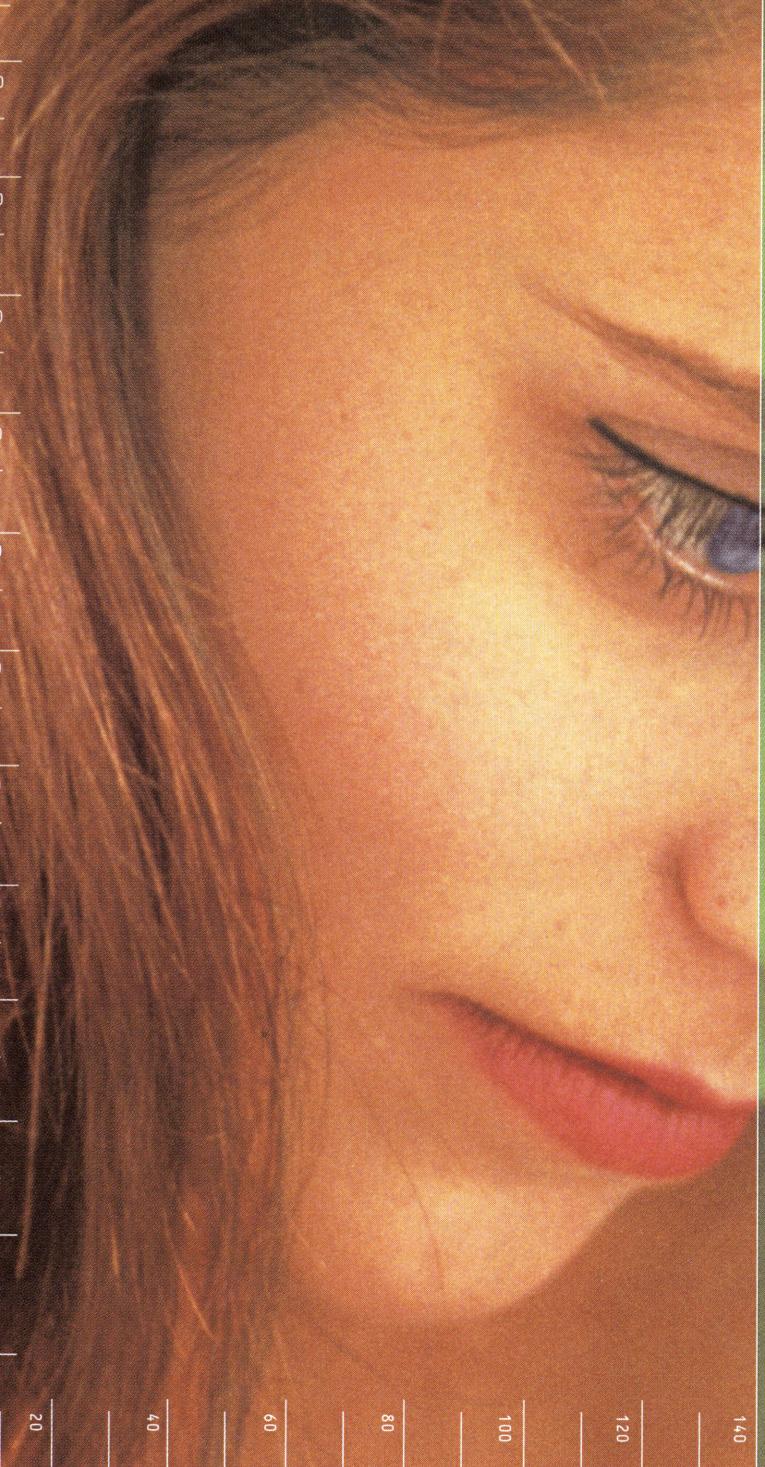
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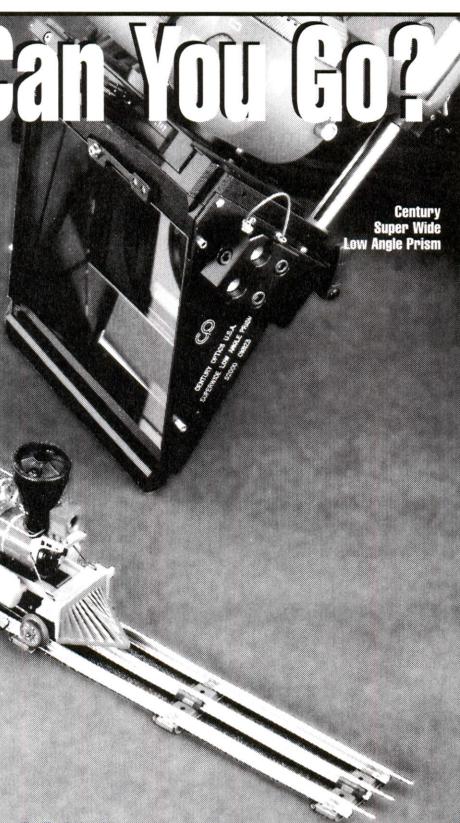
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"Domino has huge potential" says leading special effects supervisor Steve R. Rundell. Steve's credits include 'Dick Tracy', 'Last Action Hero', 'Coneheads', 'First Knight' and recent releases like 'Race the Sun', 'Mulholland Falls' and 'That Thing You Do'.

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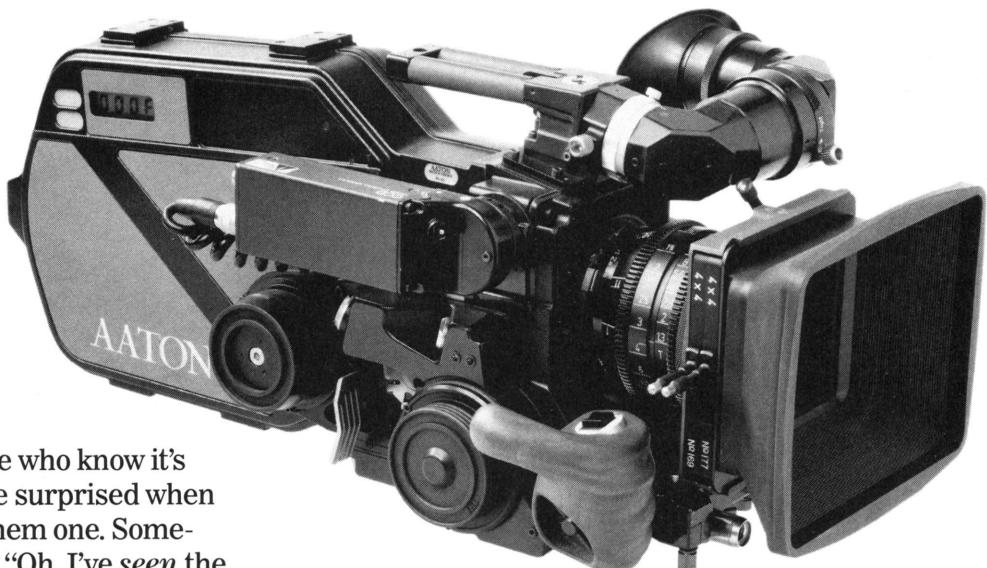

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At Clairmont: the latest model of the AATON-35



Even people who know it's small are surprised when we first show them one. Sometimes they say: "Oh, I've seen the Sixteen, it's the Thirty-five I want to see now." We say: "This is the Thirty-five." They say: "That's the Thirty-five?"

16mm style

DP Tom Sigel used to own two AATON 16mm LTRs. "I put millions of feet through them, shooting documentaries and television," he says. "They balanced perfectly on my shoulder; and this AATON-35 is the same. I'm using it for features, but I'm shooting the same way. Once you're tuned in, you barely have to hold onto it."

No headroom

DP Chuck Minsky used an AATON-35 to shoot dialogue for an MCI commercial inside a New York taxi. "We were hoping for a Checker cab," he says, "But this was a regular sedan, with no headroom. We drove back and forth all day across the Brooklyn Bridge, with two actors in the back seat and me in the front seat, hand-holding."

No soundman

DP Petr Litomisky recently shot a commercial for Seafirst Bank in a Piper over Seattle. Its four seats were occupied by the actor/pilot, the director, an ad agency man (feeding the actor lines) and Mr. Litomisky with an AATON-35. "No room for a soundman," he says, "So we put a Nagra behind the seats and used timecode."

Getting better

"I began shooting with AATON-35s about five years ago," says Mr. Litomisky. "Now Clairmont has some; and theirs are noticeably quieter. And I've had no reliability problems with theirs. Even their *magazines* are quieter; I don't know why."

2 million feet

1st AC Michael FitzMaurice worked at Pytka for about ten years, mostly as a 2nd AC. "They bought an AATON-35 in 1991," he says. "Since then, Pytka must

have run 2 million feet through it, half of which I loaded myself. The clip-on magazine has a reputation for being difficult to load, but I don't think so."

Dependable

"From 1991 to mid-1994, I wouldn't have said the AATON-35 was dependable. Now it is," says Mr. FitzMaurice. "From the beginning, we were saying: *As soon as Clairmont gets ahold of them, these cameras are going to become magic.* And now they have."

The modifications

With AATON's expert cooperation, we made several changes to one of our first two cameras. To decrease friction, we milled additional channels in the gate. We also reduced the contact area on our magazine pressure pads. We increased the pad's spring tension and we narrowed the film channel's depth. Our claw was set for deeper penetration

and increased spring tension. We suggested that the factory might increase the stroke length; and they did so.

All cameras at Clairmont have all the newest features

All these improvements are now built into all the AATON-35s at Clairmont, together with a few more of our own modifications. All our cameras are the latest version of the 35-III. See the new factory features listed below.

Carry-on

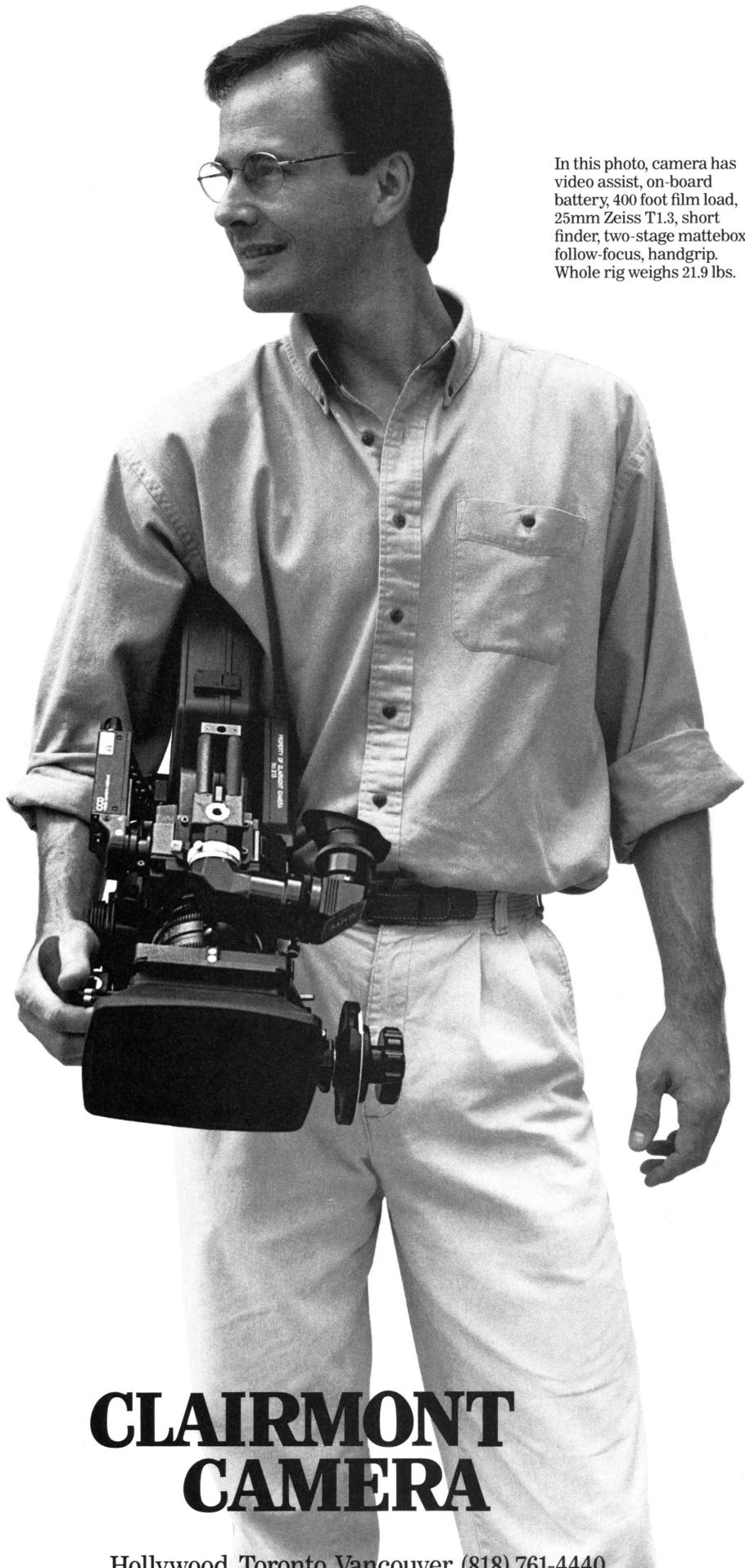
"We've gone into places where nobody knew we were filming, where a slate would have blown our cover," says Michael Fitz-Maurice. "I've walked in with the camera in a shoulder-bag designed for a pro Betacam camcorder. Nobody gives it a second look. The whole camera fits into it, with lens and magazine in place. I regularly walk onto airplanes with that bag on my shoulder, as carry-on baggage."

Camera smuggling

"I took the Pytka AATON-35 as carry-on to Brazil and back to the U.S.A. twice," says Mr. Fitz-Maurice. "We were shooting Nike commercials to be aired at the Soccer World Cup and we needed shots of the Brazilian players. On both shoots, I carried that camera into Brazil and out again without any of the authorities being aware of it."

The new factory-installed features:

A movement heater that reduces low-temperature power drain; an optional eyepiece heater; easier loop-length forming; a high-def, flicker-free, color video assist with time-code both in the video blanking and visible on the monitor; a user-adjustable shutter, to sync at 24fps with 60Hz and 50Hz lighting and with video monitors; adjustable pitch, for quieter running.



In this photo, camera has video assist, on-board battery, 400 foot film load, 25mm Zeiss T1.3, short finder, two-stage mattebox, follow-focus, handgrip. Whole rig weighs 21.9 lbs.

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Letters

The Return of the Force

Thank you for Ron Magid's interesting and thorough coverage of the *Star Wars Special Edition* (AC Feb. '97). When George Lucas insisted that this new version of *Star Wars* be the only one that is remembered, I was glad to hear the author refer to the remark as "Orwellian." Amid the shower of cookie-cutter, spin-doctored *Special Edition* articles, your features give us something far more valuable: stories that do not hold Lucas up as some kind of God, while helping us to marvel at both his past achievements as well as his visionary ideas for the future of motion pictures.

When I first saw *Star Wars* (at age 7), it sparked my imagination and inspired me to get into this business. But it also brought up difficult issues that we still grapple with today — questions of how images are created, and who controls what we see. I am excited by the ongoing dialogue on the many issues filmmakers face, and no one has the final word — not even Mr. Lucas.

— Kenneth Schellin
Mooney Productions
Milwaukee, Wisconsin

Quality Control

I recently caught a 70mm screening of Kenneth Branagh's version of *Hamlet*, but problems that have plagued the film's 35mm projection in the Detroit metropolitan area were apparent in this screening as well — problems that do not rest entirely within the projection booth.

The print that I saw (with a cinematographer, incidentally) was fraught with color variations. We both noticed that every other reel was a bit greener, as if two completely different print runs were thrown together and shipped to this particular theater. I also noticed timing variations within scenes, as if we were looking at an earlier answer print.

Regarding projection, we both thought that the image could have been much brighter. This wasn't much of a problem during exterior snow scenes and

scenes within the grand hall, wherein the grainless, pristine nature of the 70mm format was readily apparent. But the dim projection lamp prevented us from seeing what the large-format print had to offer in the forest and night exteriors around the mansion. Another problem: the print was scratched on both the emulsion and base side (we saw the print near the end of its run).

The upshot of this letter is to suggest that studio executives and producers who sometimes demand a cinematographer's head because the dailies do not meet their expectations should be aware of quality problems lurking in prints and projection booths beyond the realm of Westwood, California. The product is not looking like it should, and everything that is gained from camera negative to the first IP is compromised with release schedules and print runs that demand too much from the lab — even, it would seem, with a major 70mm release. I don't expect much from the 1.85:1 format prints shown here, and hope for the best with 2.35:1, but with the disappointing screening of Branagh's very good 70mm film, I just had to vent.

— Brian Belanger
Royal Oak, Michigan
bbelanger@hq-vsi

No Relation

This letter is in reference to an article in the February 1997 issue of AC under the heading *New Zealand*, which appeared in "Production Slate."

We're very grateful to AC for offering us this exposure; however, the article was submitted by New Zealand Film Services, not the New Zealand Film Commission. We are a private company based in Auckland with an office in California, and have no affiliation to the New Zealand Film Commission.

— Cynthia Fletcher
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The Post Process

Post/LA Expo, the postproduction exhibit and conference at the American Film Market, returns after a one year hiatus, but this time under the aegis of trade magazine *The Hollywood Reporter*. The American Film Market Association (AFMA) created Post/LA in 1995 as a technology-driven show with a boutique size and feel for AFM attendees and others. That debut show drew about 48 exhibitors and 3,000 attendees.

Judi Pulver, the *Reporter*'s film music advertising director, who is co-producing Post/LA 1997 with Janine Bruening, states that 70 companies exhibited this year and more than 3,500 people attended.

The bread-and-butter of Post/LA are the companies providing postproduction services, facilities, rental, sales, hardware and software, but the emphasis on cutting-edge technologies like digital networking and DVD is also evident. The following, in alphabetical order, are some of the highlights of Post/LA 1997.

Advanced Digital Imaging debuted its ADI Filmpak, and consists of five plug-ins and is available for any Mac-based platform including Avid, Media 100 and ImMix VideoCube and Sphere. The Cineon plug-in is a first, allowing the user to read/write out Cineon files for Photoshop and After Effects. Their other plug-ins for After Effects include X-Matte for blue/green screen compositing; HideWire for wire and rig removal; Degrain for removing film grain; and Regrain for adding film grain.

The boutique Avid house **Caliban Filmworks** recently expanded to offer Discreet Logic Inferno, Flame, and Flint, Alias/Wavefront, and film recording. Co-founder Riccardo De Los Rios reports that the facility will soon be a test site for Discreet Logic's new Riot. According to territory sales manager Suzanne Fulco, starting in the second quarter of 1997, **Cineon Imaging Systems** will be running on new Silicon Graphics platforms, beginning with O2 and subsequently with Onyx 2, Origin, and Octane.

Offering service, rental and

sales of Avid, Lightworks and Kems, **Eagle Eye** showcased Lightworks shared storage. Co-owner James Tucci reports that his company provides full integration, set-up and post design to use the Lightworks shared storage sys-

Post/LA Expo: It's Back!

by **Debra Kaufman**

tem effectively, resulting in a "huge savings" in rental costs for drives in multi-editor shows.

Postproduction facility **GM Studios** showcased products for cinematographers, including their DSF-11 anti-dust, anti-static and anti-fog enzyme for cleaning camera lenses and a range of Century filters. **Marketec** represents numerous manufacturers' wares, including products from DPS (Digital Processing Systems). Among them is DPS Hollywood, a board that turns a Windows NT-based PC into an uncompressed D-1 Video Disk Recorder.

Runway Editing Systems showcased a systems solution that in-house engineer Ron Brandt created for MTM Studio's children's television program *Bailey Kipper's P.O.V.* Brandt networked four Media 100 digital workstations running Adobe After Effects and Photoshop and Electric Image, with 96 gigabytes on-line per station. That allowed lead editor Barry Silver and others to create 60 to 70 effects per 22-minute show, and allowed MTM vice-president of post production Alicia Hirsch to avoid the pricey Flame and on-line suites.

Marketing associate Blaze Callahan reported that **Silicon Studios/LA** has formed a strategic alliance with Human Resource Marketing Services to develop a visual effects training program called Hollywood Digital Careers for unemployed workers in downsized industries, from photochemical optics and matte painting to aerospace and architecture. **Sprint** was there to show

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Drums, the digital multimedia network that runs on Silicon Graphics platforms and incorporates the Energy Film Library.

According to systems designer John Countryman, **THX** is now offering a certification program for small rooms such as editing, mixing, telecine transfer and DVD suites, to make sure that what's mixed in a small room will hold up in a large space.

For digital networking within the post facility, **Transoft Technology** showcased a Fibre Channel solution with its StudioBOSS software, which integrates Fibre Channel hardware for a "bulletproof" shared storage environment. At the Transoft Technology booth, Jim Foreman, technical supervisor for Netter Digital Entertainment, the postproduction arm for the sci-fi television production *Babylon 5*, explained how using Transoft's Fibre Channel solution for shared media storage among Avid editors greatly improved efficiency, reducing "down time" by 90 percent.

Video Products Group offered encoders and decoders for real-time, uncompressed D-1 digital transport. According to vice-president Steven Storozum, the company's main strategic customer is British Telecomm, which has developed a digital network in London. Video Products Group is now in discussion with possible US digital networking service providers. **Video Symphony** highlighted Avid equipment, servicing and training and 3D animation services.

In addition, numerous local postproduction houses made a showing, including California Communications, Crest National Digital Media Complex, Cube Films/Cube Digital, Krakatoa Entertainment, and LaserPacific Media Corporation. Out-of-town post houses Magno Sound & Video (New York) and Deluxe Toronto were also in attendance.

Post/LA offered several seminars highlighting the latest in digital transfer, explaining how to create special effects on a budget, comparing four popular nonlinear editing systems, and discussing whether postproduction professionals get the short-shrift in the film-making process.

With a successful renaissance of Post/LA Expo, local post aficionados can certainly look forward to Post/LA Expo 1998 as a manageable roundup of what is cutting edge in postproduction technology. ♦

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Production Slate

Salvaging *Das Boot*

by Jean Oppenheimer

Movies which depict World War II-era Germans sympathetically are not exactly politically correct. But though *Das Boot* (1982) focuses upon crew of a German U-boat stalking British destroyers in the North Atlantic, the film remains a riveting anti-war drama that emphasizes the dehumanizing effects of war.

Das Boot earned six Academy Award nominations (including cinematography), became the highest-grossing foreign-language film in American history (a standing recently supplanted by *Like Water For Chocolate*), and provided an entry into the U.S. film industry for director Wolfgang Petersen (*In the Line of Fire*, *Outbreak*, *Air Force One*) and cinematographer Jost Vacano, ASC, BVK (*The Lost Honour of Katharina Blum*, *Soldier of Orange*, *RoboCop*, *Total Recall*, *Showgirls* [see AC Nov. '95] and the upcoming *Starship Troopers*.)

Now, 15 years later, *Das Boot* has been restored and re-issued in an expanded director's cut, boasting re-designed digital sound and an hour's worth of new material. The director had some 2 1/2 hours of additional footage at his disposal, as *Das Boot* had been shot and conceived in two versions: the 2 1/2-hour international theatrical release and a five-hour mini-series for broadcast on German television.

Overseeing the restoration effort was Ortwin Freyermuth, a German-born producer who, like Petersen, now resides in the United States. "We never thought Bavaria Films [the studio which produced the original project] would let us touch the negative, so we planned to use the old interpositive, which had only been used once and had been very well stored in New York, and just make a new internegative. The film was originally shot on Fuji, which held up very well, but

the emulsions today are far more sensitive than they were 15 years ago, so when you make an answer print today it can be much richer and more saturated."

To everyone's surprise, Bavaria Films *did* let Petersen and Freyermuth take the negative, which was then used to make a new IP at Technicolor Labs in Los Angeles. Twenty minutes of the negative were mysteriously missing, however, and the filmmakers relied upon the old IP to fill in these pieces. Cinematographer Vacano personally oversaw the re-answering of

subtle things, like a humming in one room and the sound of dripping water in another." The dialogue was also completely recut, a process which, 15 years ago, would have taken months. Using today's technology, however, the old dialogue could be recut in just a few days.

In recalling the film's source material, Petersen says that he was deeply affected by war correspondent Lothar Gunther Buccheim's memoirs of his experiences accompanying a U-boat on one of its missions. As with David Lean's masterpiece *The Bridge on the River Kwai* (1957), the theme of *Das Boot* is the madness of war. Petersen offers, "The main thing was to portray people in war — what kind of madness it really is."

With that aim in mind, cinematographer Vacano opted for a rough, realistic documentary approach. Speaking by phone from Munich, he explains, "My feeling was that the camera should not be on a tripod, but should be moving like the people were

moving, like the correspondent was moving, looking here and there. This was the first year the Steadicam was available, but it was too bulky; we could never have gotten through the round doors inside the submarine. But I wanted the camera to give the feeling of the correspondent's point of view, and with handheld shooting, moves are a bit like a person being there. Of course, pure handheld work is shaky and distracts people, so Arriflex and I designed a camera that was gyro-stabilized and yet still handheld."

Asked how he conceived the idea, Vacano replies, "I had an idea of what the camera should do and I just thought 'How can I accomplish this?' The gyros are built for the Marines to stabilize their very powerful binoculars. I modified these stabilizers and built two, sometimes three, of them on the camera and had the camera adapted to a remote focus system, so that first assistant Pe-



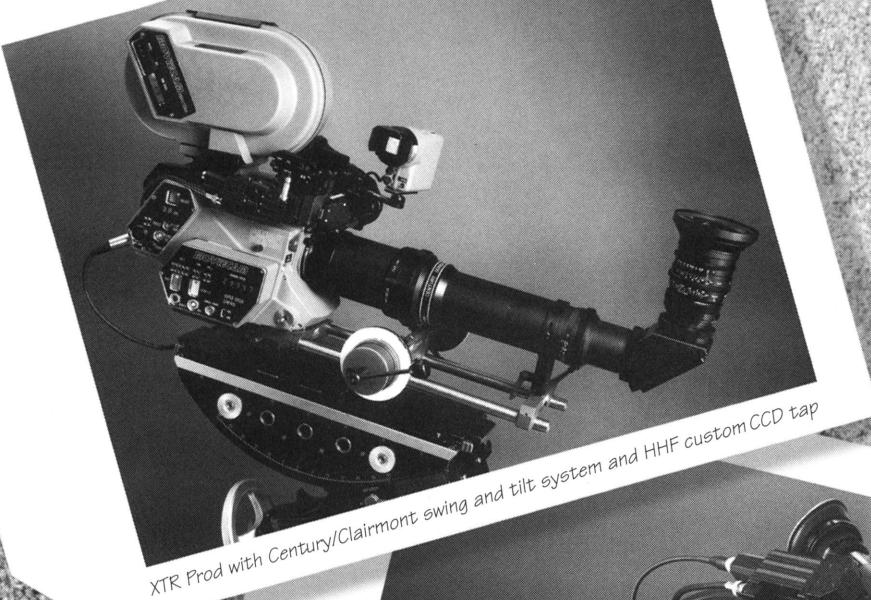
the negative print.

While the visuals were in terrific shape, the picture's sound quality left much to be desired. Hannes Nikel, the film's original editor, arrived from Germany with some 400 pre-mix sound tapes, only to discover that all of them had become wet while in storage and were unusable. The tape manufacturer offered one hope for saving the sound: baking the four-track tapes in an oven heated at 51°C, after which they could be played back one time only for transferral onto an SDDS eight-track digital format. Fortunately, composer Klaus Doldinger had kept his original music tapes, from which he was able to execute his remix.

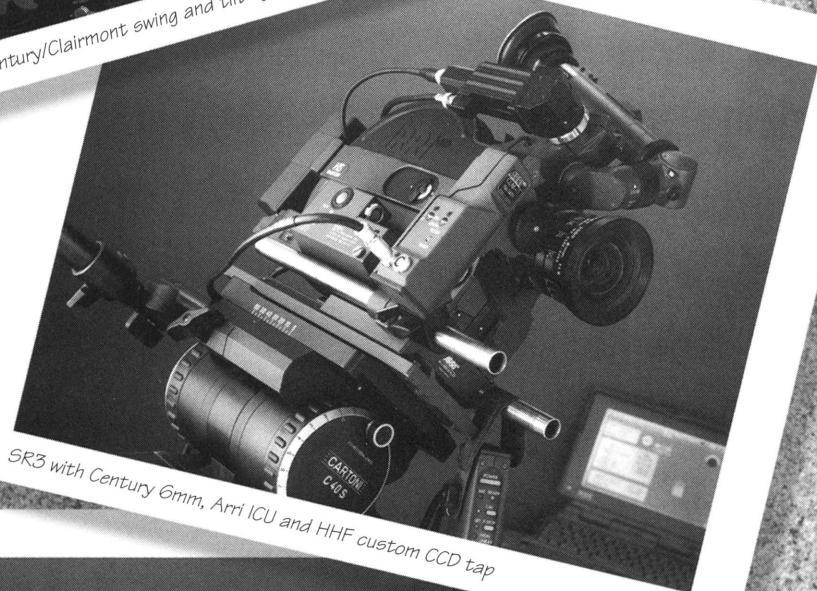
Since they had the pre-mix tapes, the filmmakers could go back and redesign one element without touching the others. Says Freyermuth, "We created sound signatures for each of the submarine's five compartments —

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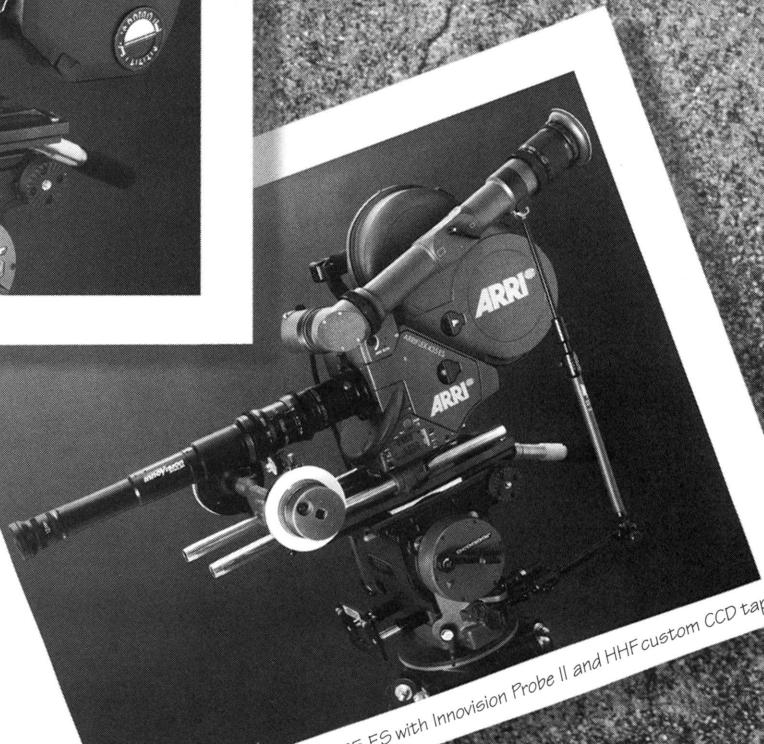
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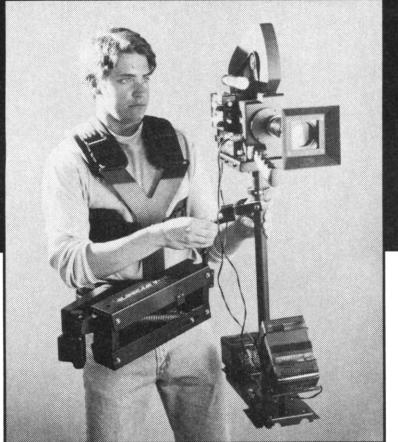


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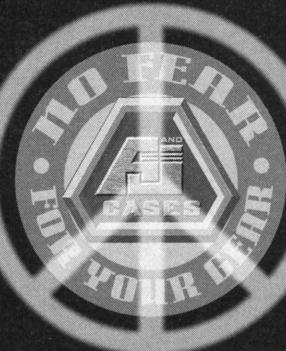
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ter Maiwald could pull focus without grabbing the camera."

To capture the nerve-wracking sense of confinement aboard a submarine, Vacano decided against moving any walls or furniture in order to facilitate filming (an exact replica of the ship's interior was constructed on a soundstage at Bavaria Studios). Thus, the camera had to maneuver in the same limited space as the people. The entire set was lit with practical sources; the ship would have been too cramped to set up lamps anyway. Ceiling fixtures contained bulbs that cast either red, blue or white light: blue light signified sleep areas, and red was switched on minutes prior to nightwatch on the bridge to help the officers' eyes adjust to the darkness.

Vacano's only concession to verisimilitude was in outfitting the set's fixtures with bulbs stronger than stan-

dard for a submarine. "We had 250-watt bulbs, 350-watt for the blue lights. Our film speed in 1980 was 100 ASA; whether you were using Kodak or Fuji, that was the highest speed. With all of those bulbs I got a stop of about 2.8, which I used for most of the shooting."

Oscar-winning set designer Rolf Zehetbauer created five replicas of the Type VII C submarine for filming: two full-size (240-foot) models, one for interiors, the other a sea-worthy likeness actually used on the open waters; a 40-foot model for storm scenes; a 20-foot model for diving and surfacing; and a 10-foot replica for underwater shots.

"Whenever you are shooting miniatures, you have to shoot them with a high-speed camera," explains Vacano. "Let's say a 10-foot boat is running through the water. The water passes very quickly; it takes just a few seconds

Independent Spirit Awards

The Independent Feature Project/West presented the 12th Annual Independent Spirit Awards on Saturday, March 22 in a tent on the beach in Santa Monica, CA. The awards ceremony was broadcast live in its entirety for the first time, airing on The Independent Film Channel. The event was co-sponsored by The Independent Film Channel, *Entertainment Weekly*, Rums of Puerto Rico and Swatch.

Once again, the Spirit Awards drew a full house of well over 1,000 industry guests and celebrities. The always affable actor Samuel L. Jackson reprised his role as Master of Ceremonies, and *Secrets & Lies* director Mike Leigh delivered the keynote address.

This year's Best Cinematography prize went to Roger Deakins, ASC, BSC for his artful work on the popular and critically praised black comedy *Fargo*, which earned a total of six Spirit Awards. (Deakins' photography on the film, which also garnered him an Oscar nomination, was highlighted in the March 1996 issue of *AC*.) Also nominated in this category were Robby Müller (*Dead Man*), Ken Kelsch (*The Funeral*), Bill Pope (*Bound*) and Rob Sweeney (*Color of a Brisk and Leaping Day* — see *AC* March '96).

Winner's in the afternoon's

other categories were as follows:

Best Feature: *Fargo*.

Best First Feature: *Sling Blade*.

Best Director: Joel Coen, *Fargo*.

Best Actor: William H. Macy, *Fargo*.

Best Actress: Frances McDormand, *Fargo*.

Best Supporting Actor: Benicio Del Toro, *Basquiat*.

Best Supporting Actress: Elizabeth Peña, *Lone Star*.

Best Debut Performance: Heather Matarazzo, *Welcome to the Dollhouse*.

Best Screenplay: Joel Coen and Ethan Coen, *Fargo*.

Best First Screenplay: Stanley Tucci and Joseph Tropiano, *Big Night*.

Best Foreign Film: *Secrets & Lies* (United Kingdom).

In addition to its regular slate of honors, the IFP also presented several special recognition awards. Larry Fessenden, writer/director/editor/star of *Habit*, accepted the third annual Swatch Someone to Watch Award, a \$20,000 grant created to honor a filmmaker with exceptional talent and unique vision. Filmmaker Leon Gast won the first annual Truer Than Fiction Award for the documentary *When We Were Kings* (see *AC* April 1996). Created jointly by IFP/West, The Independent Film Channel and DirecTV, the \$20,000 award is designed to honor outstanding non-fiction feature films.



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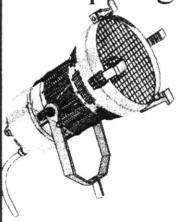
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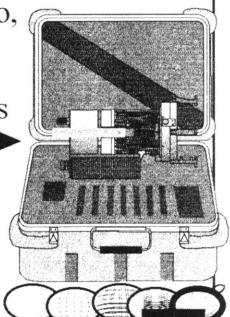
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for the wave at the front end of the boat to reach the rear. On a big boat, however, it would take maybe half a minute. To give that feeling of size, you have to overcrank the camera so that you slow down the whole motion. All of the miniature boats were filmed with underwater cameras because of the waves and the weather, and I shot most of them at 75 frames per second."

In 1980, however, no 35mm underwater cameras existed which could accomplish what Vacano wanted, so Arriflex built a special camera that could. They attached a coaxial 35BL magazine to an Arri 35-III so that the entire unit would fit in an underwater housing and still hold 1,000-foot magazines. Four such cameras were built and mounted onto the miniature boats.

Disaster struck toward the end of the nearly year-long shooting schedule when the full-size exterior sub model broke apart and drifted out to sea during a storm. Production ceased for weeks, since there was neither the time nor the funds to construct a new vessel. Fortunately, enough pieces of the wreckage washed ashore so that the boat could be pasted together believably enough to shoot a few essential exteriors. But the big storm sequence planned for the open seas became an impossibility.

Recalls Vacano, "We had to transfer the whole thing to the studio and do it with front projection. We achieved much better results on set than we ever could have on the open seas; when you are filming in a really bad storm, you are often forced to shut down. On stage, we were able to create a very bad storm and [still] keep shooting."

Both Petersen and Vacano found the experience exhilarating, and consider *Das Boot* to be their greatest cinematic achievement to date. "This film is so much about people, humanity, and war," says Vacano. "I feel that it was an important story to be done by German filmmakers."

The project had initially been planned as an American production, but when negotiations fell through with several Stateside directors and actors, the project morphed into an all-German affair. The director recalls screening the completed cut shortly before its release, remarking, "Here I was, sitting in America having my dream come true. It's a wonderful feel-

ing to finally have this version preserved forever."

Domino Lends Impressionistic Edge to *Donnie Brasco*

by Debra Kaufman

Title sequences are often still an exercise in traditional optical effects — if for no other reason than to save the significant expense of digitally scanning in elements and then recording them back out to film. But digital technology came to the rescue of *Donnie Brasco*'s opening title sequence, a complex montage of cross-dissolving still and moving images designed by Kyle Cooper of Imaginary Forces. Cooper called upon Hollywood effects house D.Rez, and the facility's Quantel Domino, for quick and economical title completion.

During a frenzied five-day stretch, D.Rez created a main title sequence composed of 22 title cards, 35 separate photographic elements and four-layer-deep sequences with multiple cross-dissolves — all for a mere \$3,000.

"There was no time to test how variances of percentages of images would look over each other, which is typical in the optical process," says D.Rez president Steve Rundell. "It was a tall order, which is why the makers of *Donnie Brasco* considered D.Rez and the Domino, which offered interactivity and speed at an extremely high resolution. The Domino was the only choice for turning the job around in five days."

D.Rez supervising effects artist T.J. Morgan worked closely with Imaginary Forces coordinator James Derin and offline editor Kurt Mattila. The duo came to D.Rez armed with an offline Avid cut, a breakdown of the multiple cross-dissolves, and a "bible" which listed the shots, their duration, and frame start-and end-points. Using the breakdown sheets (taped over an entire wall) as a visual timeline, and the Avid offline cut on the video monitor, D.Rez's Morgan had references on how to proceed with the title sequence.

The first step was to scan both 35mm still and motion picture film using the Domino scanner. Though a few stills were in color, most of the elements were black-and-white (mainly surveillance photo proofsheets documenting the actions of the film's Mafia characters). Af-

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ter scanning the elements, Morgan's next step was tweaking the images.

"We did lots of color correction to take the stills we had, which were shot on a fine-grain 35mm film, and crush the blacks to give them a strong, contrasty look," relates Morgan. "That way, the photos matched the style of the entire piece, which harkens back to the Seventies era and a grittier, more documentary look overall."

To lend a sense of motion to static images, Morgan employed the Domino to blow up, reposition and then pan across the images in various directions. For example, Morgan manipulated a photo of Al Pacino smoking a cigarette so that it appeared as if he were moving. Similarly, he took still shots of an actor exiting a car and entering a nightclub, and of the car driving away, and made them move as one continuous shot.

Some of the few motion picture segments also required color correction, such as the last shot in the title sequence — an extreme close-up on the face of actor Johnny Depp. Morgan converted the shot to monochrome, dissolving it back to color when the titles end and the film begins.

The job's most trying task, however, entailed choreographing four layers of frame-accurate cross-dissolves. "Some of the images were quite complicated," Morgan explains. "It's not just one dissolve, two dissolves, three dissolves. It's a woven web of dissolves that takes place over a background of another series of dissolves."

In order to coordinate these layers, Morgan constructed the entire sequence in chunks, starting with the base layer. "We figured out how long a base we needed, depending on when the topmost layer dissolved out," says Morgan. "The other layers would extend over that chunk of baseline with their images dissolving from one to the other, until the top layer faded out."

Then came the next piece of baseline, pegged again to where the topmost layer would dissolve out. Though the Avid rough-cut was a good reference, Morgan points out that he and editor Mattila spent some of the compositing time fine-tuning what had been done offline. "The timing of all of the dissolves was crucial and needed to be frame-accurate to the rough cut," he says. "But we had to make various adjustments to

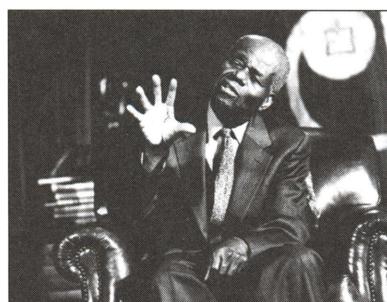
the time code so that the visual look would retain the style that Imaginary Forces had designed. Based on what wasn't happening visually, Kurt and I altered some of the times and made adjustments to a number of cross-dissolves. We had a bible, but we adhered to what worked visually."

Morgan points out that though the Domino is known for its ability to handle multiple layers simultaneously, the special nature of this piece meant that it was more practical to create one layer at a time. Compositing took three days, one of them a full 24-hour stint. The penultimate step involved adding the text (with some type elements created by D.Rez artist Janice Tso) over the composited background. Finally, the Domino was used to record two versions out to film — one with text and one without text (for future foreign titles).

"The biggest challenge was finishing the job within such a short time frame," concludes Morgan. "It was a complicated job, and we needed to do a lot of tweaking."

**John Henrik Clarke:
A Great and Mighty Walk**
by Brandon Wilson

While few entertainers would disagree with the oft-spoken desire that they should give something back to the public that has given them notoriety, many are at a loss to put such noble sentiments into action. Actor Wesley Snipes, however, has recently taken on the role of executive producer/creator of *African Scholars*, a series of non-fiction films on the most dynamic thinkers in the African Diaspora. The series' first entry, *John Henrik Clarke: A Great and Mighty Walk*, directed by award-winning filmmaker St. Clair Bourne (*In Motion: Amiri Baraka, The Making of Do the Right Thing*), documents historian/ Pan-Africanist scholar Dr. John Henrik Clarke,



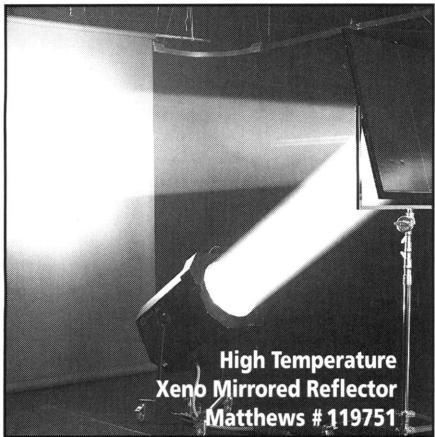
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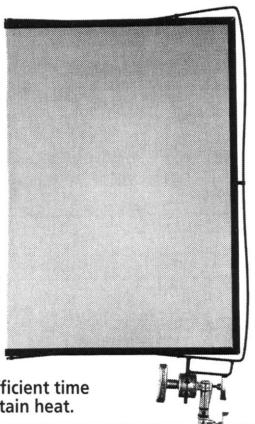
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a professor emeritus at New York's Hunter College who many consider to be the father of African-American Studies as a scholarly pursuit.

Director Bourne explains the documentary's conceptual development thusly: "Originally, the idea was to have someone interview Dr. Clarke on camera for maybe half an hour — rather than make a movie in the classic sense. We went back and forth on this for a while, and I said, 'Let's film him and see what he says, and that will determine where we can go.' The interesting thing is that I come out of a more purist East Coast classical documentary style, which generally means meeting with the subject in his or her environment. Wesley comes from the California style of studio filmmaking and re-creation. We combined those two aesthetics: we shot John Clarke in a studio set we created with an art director, used two video cameras [Betacam SP] with dollies and had a lighting technician just to create a design. All of this was totally new for me."

In addition to Dr. Clarke's own words and reflections, Snipes offers narration that illuminates the historical context of various eras in Clarke's life: his Southern childhood in Alabama and Georgia of the Twenties; his time in Thirties' Harlem, and his exposure to such Pan-Africanist thinkers as W.E.B. DuBois, historian Cheikh Ante Diop, and Malcolm X. For Bourne, determining the best way to present Clarke's varied existence required hours of careful strategizing.

Notes Bourne, "We transcribed everything Dr. Clarke said into a computer — we had 12 hours of material — and then writer Lou Potter and I sat down and rearranged the interview so that it had a structural flow: a narrative of his life with appropriate sidebars on political figures and his insights on them. I then showed this to Wesley, but I said, 'It's not going to be a half-hour, it's going to be a movie, one that will need pictures.' Wesley thought Dr. Clarke might be enough, but I convinced him that we really had to visually illustrate what he was saying. Then the hard work began of trying to select images that his words suggested."

Locating countless still photos and stock footage turned out to be the project's greatest challenge, particularly given that the director often found African history to suffer from poor ar-

chival procedures.

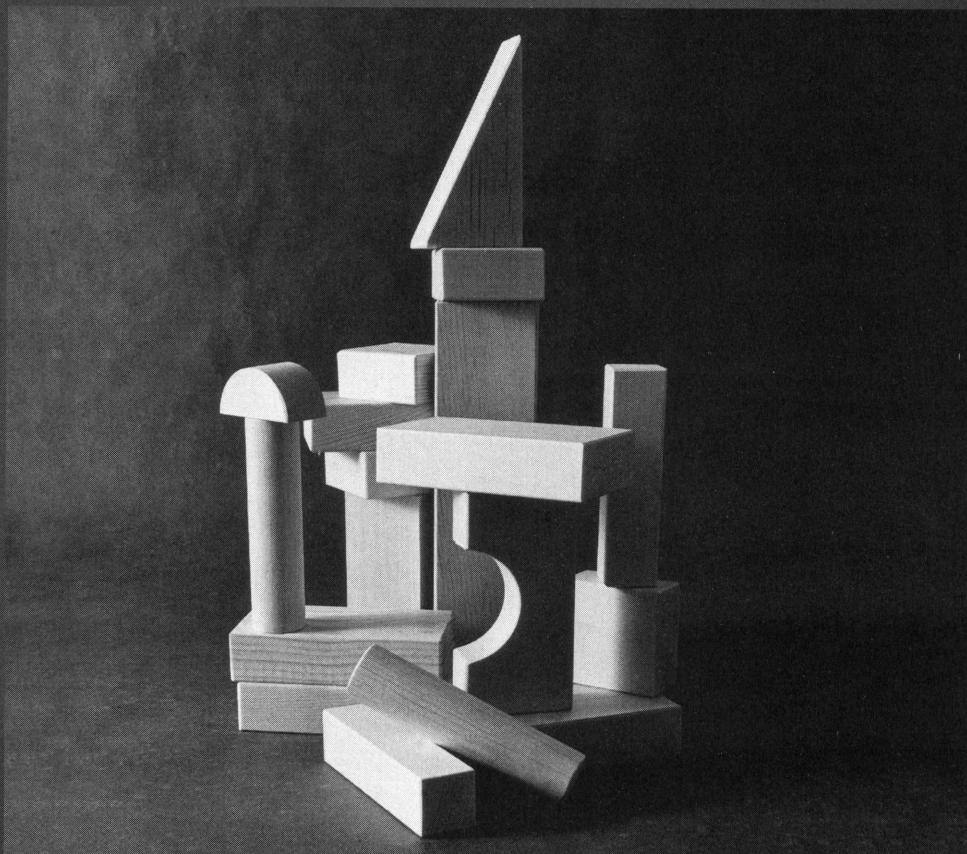
"We had to be very diligent because when it comes to African/African-American subject matter, the archives are not sensitive to the subtleties. For example, if you want something African, well, they might have something from the Caribbean, but to them it looks the same. And with some of the footage we found, such as that of Kwame Nkrumah [first president of post-colonial Ghana], they didn't know who Nkrumah was, or any of his ministers and colleagues: they just saw Africans. I'm not putting the archives down, it's just a reality if you do this kind of research."

Since producer Kimiko Jackson had insisted upon a modern look for the documentary, the crew sought out specialists to facilitate the photos' integration into the narrative in a contemporary fashion. "We took the photos to a cinematographer named Baron Claybourn, and he shot them MTV-style with Hi-8 and 16mm using lots of flares and flashes. We then processed that, transferred it to video and altered the color — sometimes heightening it and sometimes reducing it. The images are the result of a three-part process, because then we'd edit it into the film and transfer it all back to 16mm." (Bourne and his editor, Chris Fiore shaped the material with an Avid Media Composer over the course of seven months).

John Henrik Clarke: A Great and Mighty Walk was warmly received at last year's Toronto International Film Festival, as well as New York's Independent Feature Film Market, and the Carthage Film Festival in Tunisia; the success of documentary, as well as the productive working relationship between Snipes and Bourne, will no doubt ensure the future installments of the *African Scholars* series.

"I really have to give Wesley credit for putting his own money up to do the film," says Bourne. "He did it purely as a service to document this man and his opinions. As an actor, Wesley works with character, and he treated Dr. Clarke as a character. The key suggestion he gave was that the strength of this film lay in Dr. Clarke's personality. My documentary upbringing is to combine character with the environment and other factors to present a total picture. But ultimately I took Wesley's advice and decided to let Dr. Clarke carry his own story." ♦

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Photos by Ken Regan, courtesy of HBO.

In the Gloaming: An Ode to Magic Hour

Cinematographer Fred Elmes, ASC helps Christopher Reeve to create an inspiring directorial debut.

by Jean Oppenheimer

Twilight — that fleeting, melancholy interlude that occurs just after the sun has dipped below the horizon — has always had an irresistible allure. As the blue of day drains from the sky, shafts of refracted light flood the heavens in dreamlike colors, producing an extraordinary glow which envelops both earth and sky. Cinematographers refer to this phenomenon as "magic hour." The Scottish call it "the gloaming."

Twilight plays a key role — visually, emotionally and thematically — in the HBO movie *In*

The Gloaming, the story of a young, AIDS-afflicted man (Robert Sean Leonard) who returns to his wealthy parents' home to die. The film marks the directorial debut of actor Christopher Reeve, who turned to cinematographer Fred Elmes, ASC, (*The Killing of a Chinese Bookie*, *Eraserhead*, *Blue Velvet*, *River's Edge*, *Wild at Heart*, *Night on Earth*) for help in realizing his vision.

The movie is essentially a chamber piece, consisting of the young man and three other characters: his mother (Glenn Close),

father (David Strathairn) and sister (Bridget Fonda). A fifth character, a nurse played by Whoopi Goldberg, appears briefly. Although Leonard is the catalyst for all that happens, the movie's true focus lies elsewhere. "It's really about Glenn's character," says Elmes. "The story is more about her personal journey: her connection with her son, her realization that she has little in common with her husband or daughter, and her desire to reach out to them."

Reeve spoke to *American Cinematographer* by phone from

New York, where he was editing the film. "I wanted this to be about the kind of desperation and dysfunction that you can find inside beautiful, immaculate white country homes. [In this story], the perfection of the landscape, the pristine nature of the house, and the affluence of the occupants is all a facade which obscures the trouble they are in."

The original script called for nine scenes to take place at twilight, the favorite time of day for both mother and son. Reeve felt that nine sunsets were too many for a one-hour movie, and reduced that number to six. Each of these scenes takes place on an outdoor patio, with Leonard and Close sitting together (Leonard in a wheelchair), gazing out at a field which stretches behind the house. Likewise, each scene consists of several pages of dialogue and hardly any movement.

The filmmakers faced several challenges: how to make long, two-person dialogue sequences interesting, how to make each twilight scene different and, perhaps most importantly, how to shoot one scene over the course of an entire day and still make it look as if it was taking place entirely at

magic hour.

Elmes explains, "The patio faced south, so we never saw the sun actually set, but it gave us a wonderful view of low-raking sunrays over the back field. We used Kodak 5293 and 5279 for the gloaming scenes. Using such fast stocks enabled us to start fairly early in the day — around noon or 1 p.m. — and then shoot late into the twilight, changing stocks only once and pretty much using the existing natural light (although



HMs were occasionally pressed into service)."

Because fast stocks such as 5293 and 5279 are *too* fast to use when there is a lot of natural illumination, the filmmakers had to find a way to reduce the amount of light coming into the camera, an Arriflex 535. Instead of closing down the f-stop, Elmes elected to employ neutral density filters. He started with an ND 6 filter, which cut the light by two stops. As the day progressed, he switched to an ND 3. By late afternoon — daily variables dictated the proper moment — he removed all filtration. Finally, during the last light of the day, he switched to the faster 5279 stock.

"We would try to shoot toward the house or into a direction we could control when the sun was high, and fly some rag, usually a silk, over our heads to control it," he says. "Sometimes we added a net on top of the silk to reduce the amount of light. It was like an ND on the camera, but we put it overhead to darken the whole set a bit.

"As the sun went down, we would take the rag away, let some skylight in and then shoot away from the house, using the low-raking sun on the surrounding

Opposite page:
Janet and Martin (Glenn Close and David Strathairn) ponder the future of their family. Reeve saw the film as a study of how mortality and dysfunction lurk beneath a veneer of affluence. This page, top: Myrna (Whoopi Goldberg) consoles Janet in the garden. Bottom: Elmes works out a scene with actor Robert Sean Leonard. The split-level location and Reeve's condition often prevented the director from working directly with his cast and crew.



Top: Elmes and camera operator Phil Oetiker check out an angle with the aid of a custom-built video viewfinder created for the shoot by Camera Service Center. Supplying a live image to Reeve's monitor, the device allowed the first-time director the best access possible to his shooting options. He and Elmes could then plot out their visual approach (bottom).

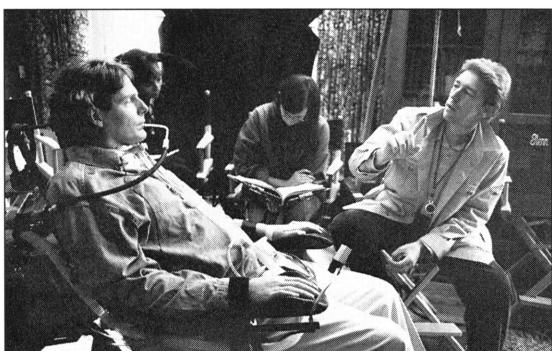


trees to get a sunset look. When the sun got even lower and the low-raking light was coming across the field in front of us, we would turn the camera around and shoot from behind the actors, out toward the field."

A 40' x 60' frame was used to fly the silk over the actors' heads. Once it was in place it didn't get moved, which meant that Elmes had to find ways to shoot around it. Certain angles proved impossible because the frame was visible in the shot.

Since the back of the house was lined with windows, unwanted reflections proved to be another headache. During filming of the patio scenes, care had to be taken to avoid picking up the silk frame or the camera in the glass. However, certain reflections did work to the filmmakers' advantage. "Sometimes we got the most beautiful lighting effect in the clouds in the late afternoon, which would play as a reflection in the windows behind the actors' faces," says Elmes. "In those instances, we didn't have to turn the camera around and look out at the sunset, because we could see it all in the glass. Having all of that texture behind the actors was wonderful."

Asked if he tried to enhance the reflections in any way, Elmes shakes his head. "I think that's where, as a cinematographer, you step back and say, 'This is what nature has given me today. My job is to make the most of it.'



You have to be aware of the bigger things that are around you, many of which you can't change. You shouldn't spend your time trying to change them, but rather finding a way to use them."

Elmes always prefers using natural light, but artificial sources were often required on *In the Gloaming*. HMIs were set up for the outdoor sequences. To make the light softer, Elmes would sometimes bounce it into a white muslin cloth. At other times, he would take two lights and put complementary colors on them so that the cumulative light source was the same color as the ambient light. This gave a subtle sense of shape to the light.

The house used in the film was chosen before Elmes was brought on board. During his reconnaissance trip to the site, located in Westchester, New York, he wanted to get as accurate an idea of the lighting situation as possible, so he continually took photographs. Every half hour throughout the

day he would sit someone down on the patio and click away to see how the light changed on their faces and on the house in the background. The information, along with his Pocket Pal solar program, proved invaluable, since it convinced Elmes that if a silk were rigged over the actors' heads, he could shoot the gloaming scenes from midday on and make them look absolutely authentic.

Reeve had always been impressed with Elmes' strong visual sense, but he told the cinematographer upfront that he didn't plan to do anything tricky with the camera; he wanted a fairly straightforward approach. "Both Fred and I tried to be unobtrusive," explains

Reeve, who relied primarily on the acting and the script to chart the emotional changes taking place. In staging the scenes, however, Reeve had Leonard and Close sit closer and closer together "until by the death scene they are almost a couple in a strange way. As they came together emotionally, I wanted to bring them together physically as well."

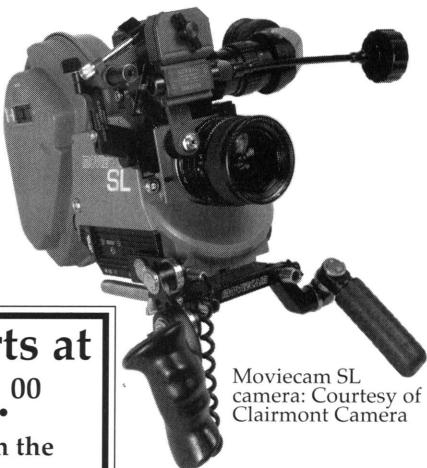
Similarly, the first part of the film is shot predominantly in wide and medium-wide shots. As the story progresses and relationships become more intimate, close-ups appear more often.

The filmmakers also sought subtle, visual ways to build changes into the characters' surroundings which would echo the psychological changes taking place. The seasons presented the perfect solution. The film begins in August, when the trees are green, and ends in late November. "We wanted it to look immaculate at the beginning, but gradually you see things becoming starker and less pristine," says Reeve. "In the summer, everything is very pastel, with lots of greens and light yellows. It's pretty, but in a kind of superficial way. When autumn arrives, we have the fall foliage and a stripping-away of anything artificial. As the story moves along and

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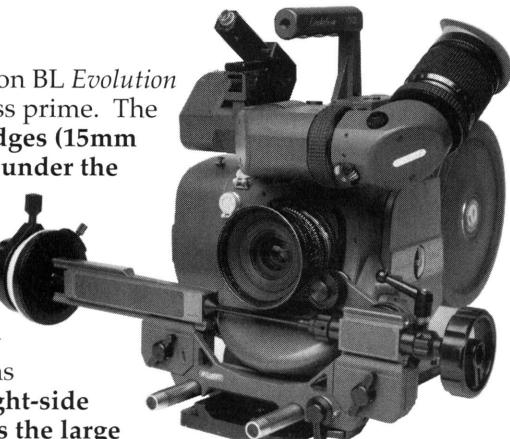
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Right: Willytec top-mounted on **Moviecam SL camera** with 18mm Zeiss prime. No camera base plate necessary.



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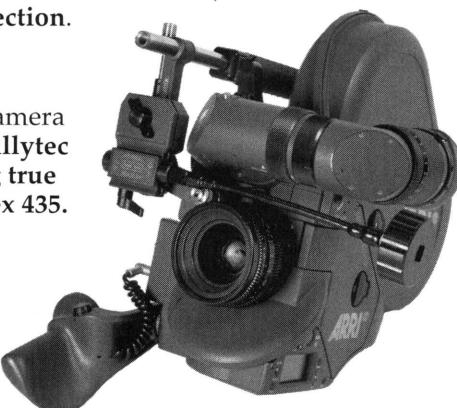
Right: Willytec on **BL Evolution** with 16mm Zeiss prime. The **two Studio Bridges (15mm or 19mm)** slide under the **mirror housing**, allowing the gear arm to reach lenses with focus rings very closed to the lens mount. The **Right-side Extension** clears the large **studio matteboxes**. The One-speed and Deluxe 2-speed Knob feature a **conical marking disc** that provides clear off-axis viewing.



Left: Willytec on **BL Evolution** with 16mm Zeiss prime. The articulated Universal Handheld Bracket can be used on 15mm or 19mm iris rods (with 15mm or 19mm knuckle) to **orientate the knob in any direction**.



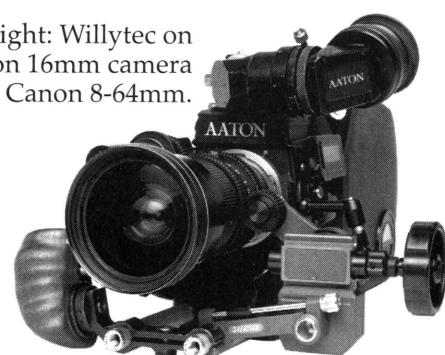
Right: Willytec on **Arriflex 435** camera with 25mm Zeiss prime. The **Willytec system is the only one allowing true handheld work with the Arriflex 435**.



Right: Willytec Follow-Focus on the **Arriflex 435** with **Angenieux 17-102mm zoom**. The **two Studio Bridges (15mm or 19mm)** are **designed with a very low profile to fit under the largest lenses**. The **Right-angle Attachment** enables the operator to comfortably pull focus on physically long lenses. The **Deluxe knob offers 2 speeds, always readily available**. The focus-puller can, in a single move, start on the faster speed and finish on the slower speed.



Right: Willytec on **Aaton 16mm** camera with **Canon 8-64mm**.



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people become more honest with each other, the colors become even more muted."

Before shooting began, Elmes was concerned about potential logistical problems that could result from Reeve's physical infirmities. Ideally, Elmes likes his directors to be next to the camera so they can see both the monitor and the actors first-hand, but that approach wasn't practical on *In The Gloaming*. The house was a split-level, which made it impossible to get Reeve's wheelchair upstairs for bedroom scenes. Additionally, the director's ventilator was quite noisy, which forced him to keep his distance during certain scenes.

The end result was that Elmes would sometimes be in one room filming the actors while Reeve was in the next room, watching on video monitors. According to Elmes, this working method actually worked out extremely well. "Naturally, the camera had a video tap on it so Chris could always see what the camera saw," says Elmes. "But I felt it would be necessary to have more than that, to have some

kind of video viewfinder. So Camera Service Center in New York, the Arriflex equipment house there, built us a video viewfinder. They took a standard viewfinder, to which we could attach camera lenses, and rigged it with a color TV camera and a video screen, so I could walk around the room and show Chris the shots that I saw.

"We had a second camera as well, a kind of video spy camera up in the corner of the room, so Chris could look at one monitor and see the whole room, with everybody in it, and then look at the other monitor and see the video viewfinder. The actors would go through the scene, and Chris and I would look at the rehearsal from our respective rooms. He would speak to us via an intercom system, and then I would pick up the video viewfinder and say, 'Okay, let's run through the rehearsal again. Let me hold the camera here and during the rehearsal I'll be the dolly and make this move and see what you think about it.' I would make the camera moves and we would then talk about it."

The video monitors were color units, which is still relatively unusual, and the best-quality monitor and camera were used for the small video viewfinder. Although HBO has a policy against film dailies, the company was willing to make a Betacam transfer of the rushes, which offered better quality on videotape. All of the preproduction tests were shot on film and screened at a theater.

Elmes opted to shoot *In The Gloaming* with an Arri 535. "The Arriflex has a wonderful viewing system for lighting through. It also has a feature which allows you to easily and seamlessly alter the camera speed. You can overcrank the camera speed and slow down the actors' motions on the screen, but do it invisibly and without any exposure change. On this film, we took a few moments and stretched them out."

The cinematographer also took advantage of a new set of variable primes lenses from Zeiss. Instead of a zoom lens that goes from wide angle to telephoto, they make a set of three — all zooms — which

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span from wide-angle to mid-range, within mid-range, and from mid-range to telephoto. "The advantage of these lenses is that they are very sharp, and a little faster and freer of distortion than most zoom lenses," Elmes explains. "They allowed me to know that I had a very sharp, fast lens on the camera, but I was also able to do a little repositioning of the image whenever I wanted."

Nearly the entire film was shot with these variable primes. Regular primes were used when the light fell to almost nothing and when a second camera was set up just to shoot the twilight. When the field looked good, Elmes would simply point the second camera in that direction and shoot.

For the patio scenes, the filmmakers didn't want the colorful trees in the background to distract viewers from the characters, so Elmes used shallow focus. "We chose to use the light and shadow of distant trees as texture, without showing details," he explains. "By keeping the camera closer to the actors, even with a relatively wide

lens, the background goes out of focus and you place more emphasis on the performers."

Elmes had nothing but praise for what he fondly calls his "East Coast team" of gaffer Jonathan Lumley and grip Jim Finnerty, Jr., with whom he worked on Ang Lee's upcoming film *The Ice Storm* last spring and on *Reckless* the year before. "They are always there for me, and it really makes a difference. They know things I want without having to talk, and they were very respectful of the situation."

Certainly, Reeve's handicap was a new challenge for everyone involved with the shoot. But everything ran smoothly, allowing the entire cast and crew to fully concentrate on bringing the story and characters to life onscreen. The director admits to only one moment of real frustration during the 22-day shoot. It occurred during the filming of a brief Busby Berkeley-style fantasy sequence in the film, in which Leonard appears with a young woman. Reeve was trying to explain to the two actors

how he wanted them to position themselves and do a spin. "I could have gotten up and shown them in a minute, but I had to do it with words and I was getting very impatient," he says.

Elmes had strong words of praise for his first-time director. "Chris has a talent for explaining a scene, for saying what he needs and expressing his ideas," he says, adding with a laugh, "I think he must have been a director in a former lifetime, because he is very good at telling people what to do."

Reeve says that the biggest influence on his directorial debut was James Ivory, who directed the actor in *The Bostonians* (1984) and *The Remains of the Day* (1993). "James would gather the best people around him and then allow them ample room to express themselves in every department, from camera to costumes. He lets people make a contribution and then picks the best of what is offered. When you have a set full of people who feel that their contribution is valued, you get magnificent results." ♦

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Astral Grandeur

Director Luc Besson and cinematographer Thierry Arbogast, AFC create a kaleidoscopic 23rd-century adventure with *The Fifth Element*.

by Andrew O. Thompson

(French translation by Alexandra Kravetz)

Within his plush Malibu beachhouse-turned-post-production facility, French filmmaker Luc Besson cradles a cup of steaming tea while coyly deflecting specific questions concerning the plot of his avant-garde stellar epic *The Fifth Element*. Although this futuristic film holds the coveted opening night slot at this month's 50th Cannes Film Festival, the director has shrouded it in the utmost secrecy. An animated yet weary-looking Besson offers sparse specifics about the film's mythical

battle between virtue and villainy, which is set in the year 2259. Instead, the Gallic auteur presents a five-minute "making of" documentary which displays highlights of the production's 22-week shoot, which took place from January to June 1996 on nine soundstages at Pinewood Studios outside London, England.

While the film's narrative is resolutely obscured, this quick-cut cacophony of behind-the-scenes imagery is hypnotic: Leeloo (Milla Jovovich), an otherworldly

nymph crowned with a day-glo orange coiffure and swathed only in strategically placed silk strips, takes out alien aggressors twice her size; gangs of troll-faced aliens (known as Mangalores) exchange blaster fire with intrepid cabbie Korben Dallas (Bruce Willis) in an ornate dining chamber; Zorg (Gary Oldman), a dapper arms dealer with a two-tone, post-punk hairdo, strolls from a spacecraft's green-glowing gantry with mayhem on his mind; and a compact flying taxicab careens through the skies of

The Priest who protects the secret of the fifth element (Ian Holm) is held hostage by Mangalore mercenaries. Arbogast found the aliens' design and detail to be exceptional and usually used toplight to both add menace to the creatures and bring out their skin texture.



Photos by Jack English, courtesy of Columbia Pictures.



a swirling Manhattan cityscape as it flees multiple police vehicles.

Science-fiction is a genre long loved by Besson. As a teenager, he penned the original story for *The Fifth Element* as a novel, and freely admits that a comic-book aesthetic drives his cinematic sensibilities. Though *Element* is in the same vein as Besson's first feature — the \$375,000, silent, black-and-white post-apocalyptic tale *Le Dernier Combat* (*The Last Battle*, 1983) — his latest futuristic romp is a far more ambitious undertaking. The color-filled film's \$75 million budget ranks it as the most expensive European production to date.

In keeping with the hands-on approach Besson established on *Le Dernier Combat* and has practiced on all of his successive films — *Subway* (1985), *The Big Blue* (1988), *Atlantis* (1990), *La Femme Nikita* (1991) and *The Professional* (1994) — the filmmaker operated the camera himself throughout the entire shoot. While such a working

situation is rare for directors working within the Hollywood system, Besson prefers it because he can maintain better control of the onscreen action. "I create the frame and the movement within it," he explains. "Why lose time explaining everything to someone else? He's going to be slightly off, and then I'm going to freak out and say, 'No, this is not what we discussed. I want the camera here!' So it's better for everyone involved if I just do it myself."

"What gives me the most satisfaction is the relationship that I have with the actors," he submits. "If you're in the middle of the action, you can hear them talk or cry, and you can even grab an actor and place him in or out of the frame."

Besson shot *Element* in the Super 35 format, primarily with an Arriflex 535B most often fitted with Zeiss prime lenses. He also wielded Arri 2C and 3Cs for handheld work, multiple high-speed 435s for action scenes, and a miniature Eyemo camera for POV

shots. His in-the-action filmic style makes heavy use of focal ranges between 25 and 50mm.

Besson had worked with the anamorphic format on his prior pictures, but switched for *Element* at the request of the special effects team at Digital Domain (see page 42), saving them the task of compressing and decompressing the film's images while taking advantage of the experience they had gained on such special effects-laden Super 35 pictures as *True Lies* and *Apollo 13*.

To reduce grain, *Element*'s Parisian cinematographer, Thierry Arbogast, AFC (*J'embrasse pas, Ma Saison Préférée*, *Mina Tannenbaum*, *The Horseman on the Roof*, *Ridicule*, *L'Appartement* and the upcoming *She's De Lovely*), chose to shoot the film with slower stocks that wouldn't be as vulnerable to image degradation. Kodak's 5293 was employed for non-effects photography, and 5248 for any scenes requiring greenscreen work or other image manipulation. This conces-

Black-hearted weapons dealer
Zorg (Gary Oldman)
demonstrates
one of his latest
products for a
gang of
Mangalore
lackeys. While
the character
features comic
costume
stylings,
Arbogast's
Godfather-esque
toplight gives
Zorg an air of
evil.



Besson dollies in on a group of passengers in the main hall of the Phleasant Paradise luxury cruise ship. The set, built at Pinewood Studios, was extended in post by Digital Domain and offered Arbogast one of his few opportunities to utilize stage lighting from above. Since Besson regularly used wide lenses and low angles, most other sets were built with completed ceilings — requiring integrated lighting.

sion also allowed Besson, who prefers lightweight equipment for obvious reasons, to avoid using the bulkier VistaVision camera system.

The director found the most distinct difference between the anamorphic and Super 35 formats to be their respective depth-of-field parameters. "There is not a lot of depth when you are shooting in Cinemascope, so the background will be very unfocused," he notes. "If I shoot someone who is backlit at night in anamorphic, the light will be washed out and totally out of focus. But with Super 35, the depth is so great that it changes everything for me [in terms of shot composition].

"Now I have to focus on almost everything. If you take a 35mm or 14mm lens in anamorphic, the minimum focusing distance is three or four feet. In Super 35, the minimum focus suddenly becomes very close, say one and a half feet. Since this is a sci-fi movie, I was very happy that I could play with [focal depths]. I could come in very close to the actors and still have full focus."

Besson is enamored of visceral camera movement that features a full range of kinetic techniques, including handheld work, dolly and crane moves, and Steadicam. When filming action sequences, Besson prefers to create the tension during the moment,

rather than enhancing it afterwards. He explains, "For me, there are two ways to shoot an action scene. The American way, let's say, is more inclined to add the action [in postproduction]. First, lots of coverage is shot with six cameras outfitted with long lenses, and then the rhythm is created through the editing. So it's basically one 25-second-long scene edited between six angles.

"I write each action scene as if it is a ballet; the movements fit with the music. Generally, I'll shoot a fight sequence for 10 days using just one or two cameras and a very small crew. I've already written out the fight scene in my head, shot by shot. I do this for each and every sequence so that we can just shoot it, and then put the scene together in the editing room. At the same time, when you're on the set, you can have an idea at the last moment; you realize that from a different angle the light might be better, so you change the perspective [of the shot]. But I'll always write down and block out this [new] progression."

Besson's framing and compositional preferences are rooted in portraiture, particularly the work of 16th-century Flemish painters, Italian artist Amedeo Modigliani, and Spanish surrealist Salvador Dalí, as well as various still photographers. "Paintings and

pictures are good for understanding movement, because you're not bothered by the story," he offers, comparing the experience to studying motion pictures. "The aestheticism is more efficient, more upfront. When a movie is really well-done, you're supposed to be totally involved in the story and not even care where the camera is. The first time I saw *One Flew Over The Cuckoo's Nest* [photographed by Haskell Wexler ASC and Bill Butler, ASC], I couldn't tell where the camera was, because I was crying and totally overwhelmed. I often have to see a movie three or four times before I can figure out how the director did something."

Since Arbogast had previously collaborated with Besson to create dazzling imagery for the action-thrillers *La Femme Nikita* and *The Professional*, the cinematographer was accustomed to the director's unique division-of-labor during the production process. But given the immense scope of *Element*, and the extensive amount of special effects — two new challenges for Arbogast — the cameraman says that he had more than enough work on his plate.

Typically, Besson and Arbogast discuss ideas during preproduction, after which the cinematographer is given free reign to handle all photographic concerns regarding lighting, exposure and stocks. One of the duo's initial agreements involved forsaking the neo-noir, dystopian style that has become a standard in sci-fi cinema over the past 15 years. The cameraman explains, "Films with very dark moods, like *Alien* [shot by Derek Vanlent] and *Blade Runner* [photographed by Jordan Cronenweth, ASC], have many scenes using smoke to create shafts of light. Luc didn't want that kind of look for *The Fifth Element* because this movie also has comedic aspects. The light in Luc's films is always based on realistic sources; it has to make sense. He prefers a simple, honest approach with a striking effect, and doesn't necessarily like sophisticated lighting setups.

"Our objective on this film was to have a lot of colors and a lot of depth," Arbogast adds. "Every-

thing was to be very sharp and clear, so the images would pop off the screen. Luc really wanted a comic-book style of look, so we worked together to pick the appropriate gel colors. [Since the film was shot primarily with tungsten-balanced lamps], we used HMIs as cold sources. We also tried to use complementary colors. For example, in the airport setup [a sequence in which Korben and Leeloo attempt to flee Manhattan], we had a lot of green and purple mixed with blue and a little red."

During the prep period, Arbogast worked extensively with production designer Dan Weil to integrate various lighting units — primarily fluorescent and occasionally ultraviolet fixtures — within the sets themselves. More often than not, the futuristic spaces dictated the types of fixtures that could be used.

The high-rise apartment of cabbie Korben Dallas proved particularly complex, given its compact, cube-like shape and Besson's desire to have the set built and shot as a practical location. Most of its illumination emanated from twin rows of ceiling panels containing fluorescent fixtures. Some smaller variations of these units jutted out from the walls, providing additional illumination. Says Arbogast, "The look of his apartment was a sort of futuristic variation on the types of big but low-rent apartment buildings we have in France. The apartments are like little cubicles. The set was a bit boxy, which led me to go with top-lighting. We also did a lot of bounce lighting."

"Many of the sets had ceilings, because Luc likes to shoot from low angles quite a bit," the cinematographer notes. "There were exceptions, such as the airport, where we had arches that blocked the view. We couldn't use as many low angles there, which allowed me to light from the top."

Early in the film, a fleet of

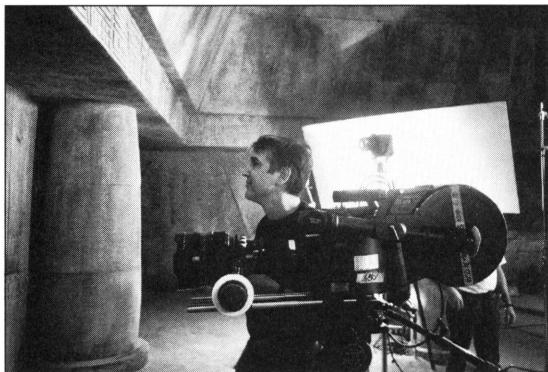
Earth's starships encounter a powerful celestial entity — the embodiment of Evil — as it bears down on their home planet. Much of the sequence takes place aboard the bridge of the cruiser helmed by the President of the Council of Federated Territories. Arbogast and Weil lined the set with translucent panels of stellar charts that were lit from behind. Fill was created from overhead low-watt fixtures. Assessing the purple-hued command center, Arbogast says, "That set was easy because it was like a box; there was no opportunity to create cross-lighting or anything of that nature because there were no real sources. It was like a set out of *Star Trek*."

Midway through *Element's* stellar adventure, Dallas and Leeloo board the floating pleasure cruiser *Fhlostorn Paradise* to contact an extraterrestrial opera diva and

find clues to the whereabouts of the five artifacts they seek. Before the pair can acquire any information, the strange siren must first take the stage and perform for an eclectic audience of admirers.

The scene was one of the film's few that was filmed on location, inside the towering London Covent Garden Royal Opera House. While on stage, the aquamarine diva is bathed in an intense but cold spotlight. Recalls Arbogast, "When we were planning this, I remembered the scene from *A Clockwork Orange* [shot by John Alcott, BSC] where the nude woman on the stage [during the demonstration of Alex's "cure" via the Ludovico technique] was lit by a blue follow-spot. In our film, the diva's outfit was blue and the set was a bit golden in tone, so I thought it would be best to play with the color temperatures a bit. I lit her to be slightly overexposed, which would help give the impression that some of the light was emanating from within her. We wanted her to give off a glow. I lit her with a 4K Xenon from the balcony seats above, but since the stability of the light on her wasn't perfect, I used a 6K Cinepar for the tighter shots."

"Most of the lights you see in the opera house were already there," he adds. "The difficulty was in lighting the people in the audi-



Top: Parisian cinematographer Thierry Arbogast, AFC studies an interior setup. **Below:** Besson blasts away with a futuristic weapon outfitted with a miniature Eyemo camera to capture a gunman's POV. The director filmed this particular setup with both a 25mm and 32mm lenses.

Top: NYPD's finest march into action. Notes Arbogast of the officers' beaming breastplates, "That effect was very difficult to perfect. We ended up choosing an incandescent quartz fixture to fit inside the costumes. It was the smallest unit that could be easily placed inside [the circular plate]; the glass was polished and we put a reflector inside for bounce."

Bottom: Buxom stewardesses prepare for liftoff aboard the shuttle from Manhattan. Built-in fluorescent practicals again provide the key light.

ence without illuminating the white facades of the balcony. Therefore, we used a lot of flags to focus our lighting precisely on the people."

Location work factored into the picture's prologue as well. The film's first sequence begins in early 20th-century Egypt, where a spaceship piloted by the benevolent Mondoshawan lands near a temple to retrieve four of the five elements needed to vanquish the evil forces threatening the universe. Ten days' worth of photography took place in Mauritania, a nation on the eastern peninsula of the African continent. With advisory assistance from Digital Domain effects cinematographer Bill Neil, Arbogast shot background plates for the ship's vertical landing and takeoff. The location-shot footage was later augmented with set work photographed at

Pinewood Studios.

Arbogast details, "We wanted to give the desert a presence, and we used very bright light outside to give the temple the feeling of a black oven or corridor. Luc had the brilliant idea to have children use mirrors to reflect light into the temple [as a practical source]. I decided to deploy 18K HMIs for this general daylight effect, because I wanted to use a few very strong sources. We then used a Xenon light to get the reflection of the 'sun' from the mirrors. We didn't use any lens filtration, because the sets were already done in warm tones, but we did use warming gels on the lights."

Clad in copper-colored armor, the lumbering Mondoshawan resemble nothing so much as a group of giant walking alarm clocks. They were lit much like an automobile might be in order to highlight their gleaming contours. As Arbogast recalls, "I tried to bounce my lighting, because their metal suits took reflections very well. We had also hung a large softbox overhead for overall ambience. The motivation was that there might be a hole in



Shaping Things to Come

At first view, the milieu of *The Fifth Element* evokes the kitschy, chrome-laden futurescapes popularized by the graphic fantasy magazine *Heavy Metal*. The resemblance stems from the fact that production designer Dan Weil (*Kamikaze*, *The Big Blue*, *La Femme Nikita*, *The Professional* and *Total Eclipse*) received assistance from two of France's most celebrated sci-fi comic artists: Jean "Moébius" Giraud, a pioneer illustrator for *Metal Hurlant*, the French periodical upon which *Heavy Metal* is based; and Jean-Claude Mézières, the famed artist of the graphic novel series *Valério—Agent of Time and Space*.

Weil and Mézières' vision of 23rd-century New York City began with basic concepts gleaned from utopian architecture. Director Luc Besson's prerequisites were that the skyline be identifiable and that the city (viewed mainly during daytime) not be enveloped in a smoke-strewn, overcast atmosphere. The film's Manhattan — a massive, multi-tiered megalopolis — recalls the colossal constructs of the futurist classics *Metropolis* (1926) and *Things to Come* (1936). But *The Fifth Element* takes urban incursion to a different level by envisioning underground development. Says Weil, "Most sci-fi movies always imagine buildings to be higher and higher. We decided that there would be [structures] one-and-a-half times the height of the tallest skyscraper in New York City today. At that point, it wouldn't make any sense go higher, even if one could accomplish it. Also, there would be so many people living there that the ability to build higher would be limited technologically — so we created a deep city. The idea was that few hundred years from now, technology will allow us to build something underground that's the



The Big Apple
circa 2259 A.D.
This megalopolis
melds utopian
architecture with
modern
Manhattan. Note
the inland Statue
of Liberty — the
victim of a
receding sea
line. Going
against the grain
of standard sci-fi
structures,
production
designer Dan
Weil and Gallic
illustrator Jean-
Claude Mézières
envisioned their
future city to be
as deep as it is
tall — with a
large portion of
the structures
built
underground.

size of World Trade Center's twin towers.

"We also elaborated upon the concept that due to climactic changes, the sea level has lowered and New York has become arid — the shore is no longer so close, and the Statue of Liberty is no longer in the ocean. There is now a lot more land; instead of going to Battery Park to get a boat, you know have to go five to ten miles further.

"Still, the city had to be recognizable conceptually. The most important thing about New York is the view of Manhattan, which is known worldwide, especially to Europeans. So we wanted to keep our Manhattan in the same basic shape it's in now — even if ours is higher — with parallel and perpendicular street grids and the standard sizes of a block. We also wanted to keep the idea of Brooklyn, Manhattan and New Jersey as three different cities, and not create a crazy city that was completely out of scale."

The trio of Weil, Moébius and Mézières supervised seven up-and-coming illustrators — of French, Brazilian, British and American extraction — who toiled collectively on Besson's concepts. The initial preproduction sessions began in November of 1991 and continued for a year until the project's temporary hiatus. Draft-

ing resumed in September of 1994, when Columbia Pictures acquired rights to the film, and continued through principal photography.

Once a week, Besson offered the artists a description of a particular living being, or inanimate instrument, speaking only in terms of its intangible qualities. The illustrators had one week to devise a sketch based upon Besson's idea. The director then surveyed all of the sketches and, with Weil, selected one or asked for portions of several drawings to be melded into one design.

After the first year, the team generated some 3,000 images. When prep recommenced in 1994, Besson and Weil picked the best concepts; the artistic collective then proceeded to devise additional designs. When all was said and done, approximately 8,000 sketches were created. (Elevated plane models of the various sets were later constructed so that Besson could conceive potential shots.)

Since Weil hails from a realist background, the production designer steered his artistic team towards a functional futurism free from cumbersome, gimmicky hardware. He says, "Since I was working with sci-fi artists, I had to fight a lot against the mechanical and technical exaggerations of sci-fi imagery. A vacuum cleaner, for

example, is just a piece of plastic that starts when you press your foot on it. When you design a vacuum cleaner for a sci-fi film, you need to add lots of little lights and pipes, and smoke vapor, so that what you have becomes a lot more complicated. My daily battle with everyone was not to make things simplistic, but to make them at least as simple as they are in the real world."

As Weil notes, the vibrant palette of both the sets and props not only contributed to the comic-book look of *The Fifth Element*, but provided a subtle means of altering modern substances on film so that they would appear to possess more advanced qualities. "It was a way of cheating the texture of traditional materials so that we could give them a different feeling," Weil says. "If you take a block of granite and make it purple, no one knows what it is. In the same way, if you take a piece of plaster and coat it pink or yellow, no one will really be able to see it as a simple piece of plaster. And because you yourself don't have the technology to invent something — a strange plastic like Kevlar, for example — the challenge in designing a sci-fi movie lies in coming up with a brand new type of material which no one can explain."

—Andrew O. Thompson



Above: Caught in a firefight, cabbie Korben Dallas (Bruce Willis) crouches for cover in a ballroom aboard the floating cruiser Fhloston Paradise. Right: Rifle-toting Mangalore storm a stateroom in search of Dallas and Leeloo. To deepen the set's reddish hues, Arbogast illuminated the space with Kino Flos and filtered out the blue end of the spectrum. The aliens were again toplit to highlight their wrinkled textures.

the temple ceiling with sunlight coming in."

Pinewood's mammoth "007 Stage" (famed for its use on various James Bond films) was dressed as a plush hotel ballroom during the final days of production to facilitate an extensive shootout sequence pitting Dallas against Mangalore mercenaries who have boarded the *Fhloston Paradise*. Outgunned, the cabbie retrieves a grenade lobbed by his alien foes and slings it back in their direction — resulting in the largest indoor explosion ever created. Notes Arbogast, "We used about 15 different cameras running at once for that shot. Luc doesn't like to use slow-motion for explosions, but we did have the cameras set at various frame rates ranging from 24 to 48 fps. Controlling the exposure during the explosion was tricky, because the set was really big and the higher frame rates necessitated a lot of light. The extra lighting helped us to control the exposure; we didn't want the flash to be too bright."

The extensive use of special effects in *Fifth Element* — 240 shots combining CGI, greenscreen work, models and miniatures — was a novel challenge for Arbogast, who had never before mapped out lighting effects that would be coupled with postproduction creations.



An impressive example of this photographic approach occurs in the film's first act, when Leeloo finds herself trapped on the ledge of a skyscraper as she is pursued by the NYPD's armor-plated, jack-booted officers. Manhattan looms all around her precarious perch, hundreds of stories above the invisible street far below. As Leeloo considers her fate, an external elevator rushes past along the side of the huge structure, narrowly missing the girl as its running lights flash across her frightened profile.

In reality, of course, actress Milla Jovovich merely performed on a slightly elevated set, situated above a massive greenscreen. But while the cityscape and elevator car were digital additions, Arbogast had to create as much interactive lighting as possible to help sell the shot. "We had to cheat the lighting on

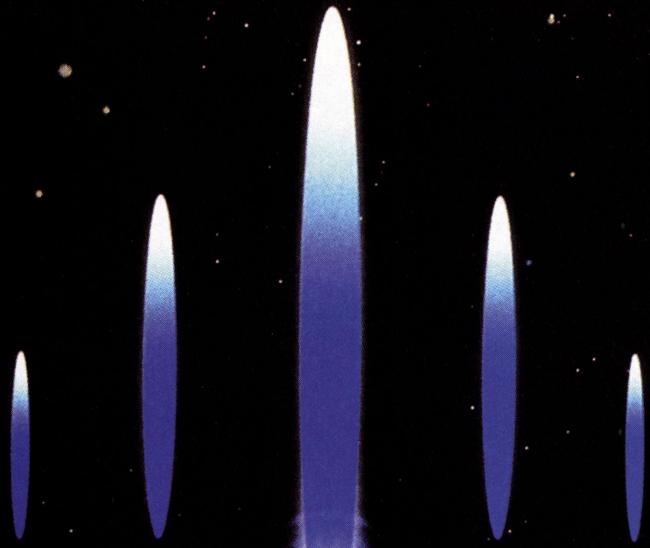
her face from the vertical elevator," he notes. "We built a special guillotine-like device that would cut the light as it moved across it. The whole thing was a bit like a film strip, with these bars that would interrupt the light. We also had a dimmer-controlled vertical light bar with different sources to create a kind of uneven lighting."

Leeloo chooses to leap rather than be captured, but as fate would have it, she safely lands in Korben's flying cab. What ensues is a spectacular flying car chase through the skies of the labyrinthine megalopolis as Korben outmaneuvers dozens of pursuing police cruisers. Arbogast offers, "The difficult part [of shooting the cab interiors] was in matching the studio lighting with the lighting of the special-effects city. I

also had to create some interactive shadows and special lighting effects on the cars, because the light was always moving around them. We rigged certain lights on dimmers that would oscillate to create the sense of movement, and also physically moved some other fixtures around the cars themselves."

Having aced his entry into big-budget moviemaking, the cinematographer is currently in the former Yugoslavia completing work on a still-untitled film directed by Emir Kusturica (*Time of the Gypsies, Arizona Dreaming*). Arbogast says that he is hoping to collaborate again with Besson, who has no new projects on deck just yet. "He's the best director I could work with," says the cameraman. "Luc has a very specific style of filming that adds a lot to the cinematography. He's a bit like Kubrick or Spielberg in the way he handles the camerawork. He places the camera to meet the action; it's simple but very effective, and the action is always clear." ♦

Additional reporting for this story was contributed by AC editors Stephen Pizzello and David E. Williams.



THE FIFTH ELEMENT

CAMERAS FROM ARRI
THE SIXTH ELEMENT

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Fantastic Voyage

Digital Domain's imagery experts help to create an eye-boggling futurescape for *The Fifth Element*.

by Ron Magid

If the box-office smash of the *Star Wars* Special Editions proves anything, it's that audiences are hungry again for what purists once disparagingly referred to as "space opera." However, French director Luc Besson's audacious new film, *The Fifth Element*, owes less to George Lucas than to the absurdist sensibilities of Jean-Luc Godard. Likewise, the film's intense imagery was dreamed up in part by French artists Jean "Moébius" Giraud (of the Gallic graphic magazine *Metal Hurlant*) and Jean-Claude Mézières (Valério — *Agent of Time and Space*), who, along with production designer Dan Weil, helped Besson visualize a fantasy film which the director had nurtured for nearly 20 years. Along the way, the filmmaker refined and expanded his ideas to include every effects innovation of the past two decades.

The result is a visually stunning, living comic book that plays out across a fully realized galaxy — from a New York stretching 600 stories in every direction (complete with traffic jams caused by flying cars) to a luxurious outer-space pleasure ship cruising over a water planet. *The Fifth Element's* far-reaching vision of the future demanded a virtual "sampler" of visual effects, and Besson chose

Photos by Virgil Mirano, digital composites by Digital Domain, courtesy of Columbia Pictures.



Digital Domain to achieve it all.

Approximately 85 modelmakers and 85 artists worked on finishing the film's 220-plus effects shots at any one time. Leading the pack was first-time visual effects supervisor Mark Stetson. A former modelmaker (*Blade Runner*, *The Hudsucker Proxy*), Stetson closed his shop, Stetson Visual Services, just after completing a colossal miniature of the ill-fated *Exxon Valdez* for *Waterworld*. Within four months, he joined Digital Domain on *The Fifth Element*.

Assessing the duo's on-set relationship, visual effects producer Dan Lombardo (*The Island of Dr. Moreau*) notes, "Luc is the type of director who is very hands-on with every aspect of a production. On this show, he didn't delegate a whole lot, except when it came to something he didn't know very well. That's when he'd lean over to Mark and ask him to step in."

Stetson himself affirms, "It was great to have that kind of relationship with Luc, who is normally

extremely private and protective. The movie's design was heavily influenced by the look of Seventies' French comic books, which made it really fun to work on. Although part of it takes place in a futuristic New York City, I think the setting is quite different from the Los Angeles of *Blade Runner*. The flying cars are a lot more whimsical, and the city is set in broad daylight. The film is rooted in a much more utopian vision of the future than *Blade Runner*, which virtually defined the post-apocalyptic look of futuristic films for more than a decade."

The Fifth Element opens in early 20th-century Egypt as a spaceship — piloted by a saintly race of aliens called the Mondoshawan — descends toward Earth. A pleasing, rusty red hybrid of a conch shell and a football, the alien craft was designed by *Metal Hurlant* artist Moébius, and was constructed as an 8' miniature by Digital Domain's model shop; a digital matte painting derived from NASA photographs



doubled for Earth.

Upon arriving, the oval Mondoshawan craft hovers on energy beams above a bizarre rock temple. The production crew painted a doorway on a gigantic rock rising from a dry lake bed, transforming it into the temple exterior. Most of the plates were shot by Luc Besson and *The Fifth Element* cinematographer Thierry Arbogast, AFC, with Digital Domain's visual effects director of photography, Bill Neil, acting as an advisor.

After a decade working as a camera assistant and camera operator, Neil began his effects career at the then-fledgling Industrial Light & Magic as an equipment designer and camera assistant on *The Empire Strikes Back* and then became a camera operator on *Return of the Jedi*. Neil subsequently went to work at Boss Film, where he first met Mark Stetson in 1983, before joining Digital Domain a decade later.

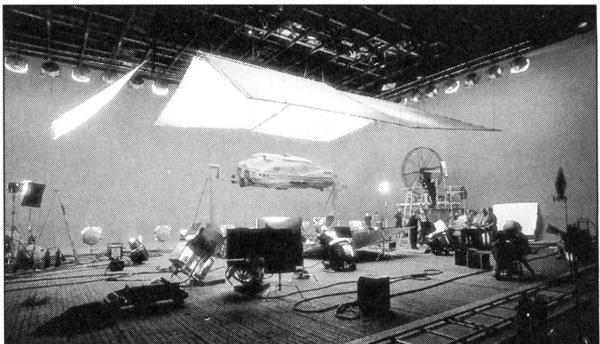
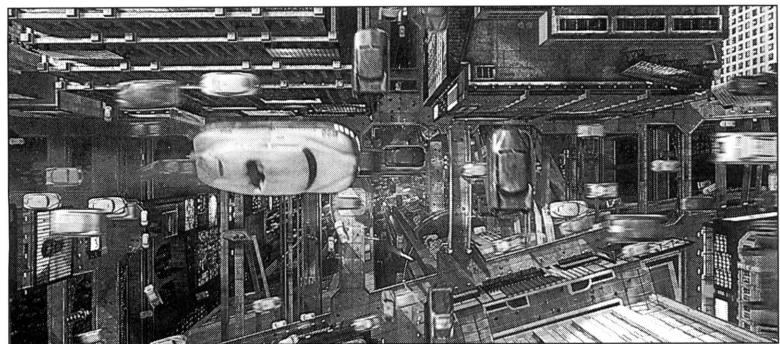
Neil had worked with de-

manding directors in the past, but Besson insisted that all of his creative options be left open — a caveat which could have spelled trouble for visual effects work. "We shot a number of alternate background plates — different angles — and it was only in the editing phase that we saw what was going to work," Neil recalled during a recent phone conversation from London, where he was about to begin work as visual effects supervisor on the upcoming James Bond film *Tomorrow Never Dies*. "I didn't have a camera crew, so Luc and Thierry photographed all the plates, and I helped them technically with post issues."

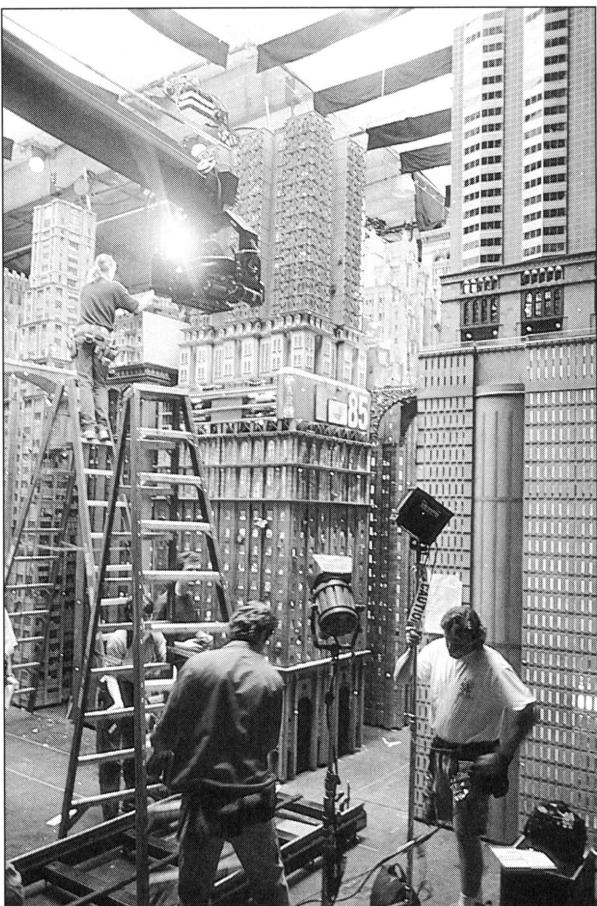
Besson had a very symmetrical, center-weighted cinematographic style in mind for *The Fifth Element*. While the director had shot his previous films in 2.35:1 anamorphic, *The Fifth Element* would be shot in Super 35, partly to accommodate the intense visual effects demands. This decision meant that the production

didn't have to shoot VistaVision background plates or use duplicate camera packages. The main unit used Arriflex cameras, and Stetson, Neil and company reluctantly agreed to use the Arris for their effects work. "We were skeptical," Neil admits. "We tried to push toward Panavision because we felt we had a better chance of having a steady plate camera, but the Arris were pretty good. The production was using the Arri 535B, and most of our plates were shot with a production camera. We also used a prototype of the new 435 high-speed camera. About halfway through production, Arriflex replaced our prototype with one of their first production 435 cameras. I was amazed at the performance of this camera in terms of its steadiness at all speeds. In fact, it was rock steady, good enough for matte work from two frames to 150 frames a second — in both forward and reverse. I've never seen any camera made anyplace in the world that could do that."

A formation of police cruisers blocks off any escape. Or do they? Digital Domain created the cars as both scale and CG models, which were used alternately depending upon the required aerobatics. The 1/24th-scale Manhattan cityscape was augmented by 2-D mattes, with stock smoke and haze elements added to increase the sense of depth.



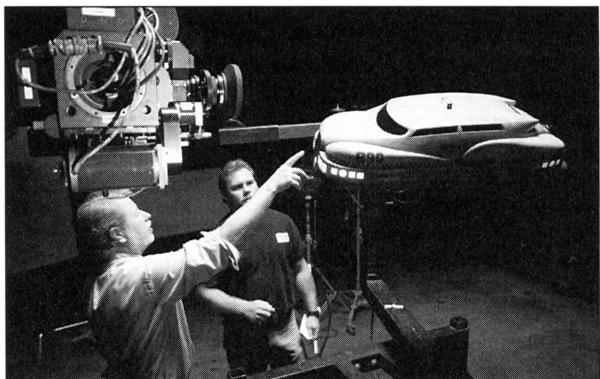
Clockwise from above: Korben's cab jets high above NYC's multi-plane traffic streams; the full-scale cab on the greenscreen stage, where Arbogast used interactive lighting to heighten the sense of movement and suggest the yet-to-be matted-in city backgrounds; the miniature cab set up for a motion-control shot; plates being filmed in Digital Domain's 1/24th-scale Manhattan.



While the Arris proved their worth, the effects team was concerned about stories of cameramen who refused to shoot Kodak's European-finished stocks because of steadiness issues, and convinced the production to import Rochester-finished emulsions for anything that was to involve visual effects, as well as the surrounding footage. Ultimately, Arbogast used Kodak 5293 for non-effects sequences, and shot the picture's considerable amount of green-screen work on the slower 5248 stock. While most effects plate interiors were shot on 5293, Neil

shot some plates of the "vertical hunk of rock" that served as the temple on 5245 at "quasi-magic hour."

According to the film's storyline, the Earth finds itself in crisis in the year 2259 A.D. The Mondoshawan are on a mission to bring all five elements to Earth when their mothership is shot down over an alien planet by the dreaded Mangalores (realized with excellent alien designs by Nick



Dudman). As envisioned by Besson and Stetson, their tiny ZFX 200 fighters make a dynamic dive on the massive Mondoshawan craft, raking its surface with fiery missiles. "We shot the move on the Mondo-shawan ship first, then did different moves on the little ZFX 200 fighters," Stetson remembers. "We had two scales for the miniature attackers: a cleaned-up design maquette measuring about 16" long was used for long shots, and a 4' miniature for close-ups."

The camera follows directly behind the devastated craft as it crashes into the planet's surface. Flames erupt through its shell, which crumples on impact, recalling the destruction of the Hindenburg. "I think Mark patterned it after an actual crash he saw on film where a pretty sizable jet plane crashed into the ground at an airshow," Neil says. "It went in at high speed and disintegrated little by little from the nose to the tail. That was the guiding principle: this thing was boring in and breaking up beyond the diameter of the ship, whose width covers the impact point."

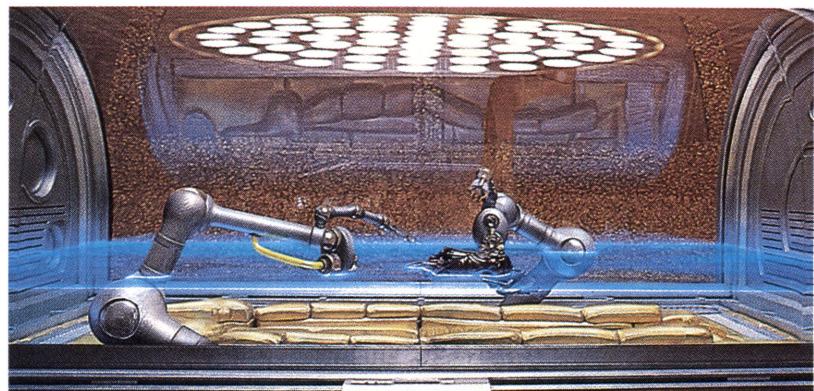
The "destruction" of the Mondoshawan ship was shot on a soundstage. "We turned the whole environment 90 degrees, so we

were looking across the stage at the tail of the ship and pulling our motion-control camera back," Neil says. "We created interactive lighting effects, like firelight, as a sweetener to help join the model to the pyrotechnic plate."

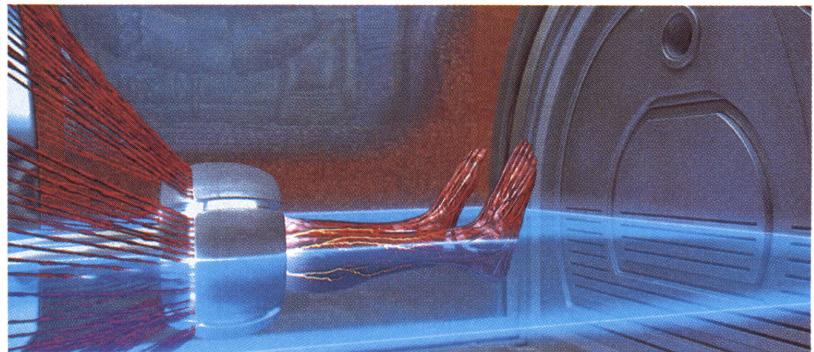
"No models were harmed during the creation of the sequence," Stetson adds with a laugh. "That was sort of a philosophical thing. I was dealing with a space fantasy here, but I didn't want to do another big 'miniature explosion' movie. I didn't want to build a huge 40' spaceship, drop it into a planet surface and explode it; I wanted to do something a little more violent with the actual explosion and then just scale the ship into it. Scott Rader tracked in a lot of surface explosions to the miniaature — some that we had photographed and some from the Digital Domain pyro library. We then followed the Mondoshawan ship as it crashed into the red planet, which was a typical 'Luc-vision' shot looking straight down the tail of the ship as it impacted the surface."

The massive explosion that results involved a huge pyro shoot at Indian Dunes. "The planet was a patch of ground about 50' wide by 125' deep, which was sculpted very carefully with little craters," Neil reports. "We chose that spot because it gave us late afternoon light and was relatively flat; we could do pyrotechnic events without starting grass fires. Thaine Morris and his associate, Ilya Popov, assembled a huge system of 45 to 50 mortars set up in a ring in the center of the landscape so they'd all blow from the center out as the ship hit. They also set up primer cord around the outside to create a spray of debris. It was a very cleverly choreographed pyrotechnic event. We put two small, high-speed Photosonics 4ML cameras side by side and bracketed the frame rate because additional camera costs were small compared to the cost of dressing the set. We did two formal takes. The final frame rate was around 100fps. We shot on 5293 because it was fairly dark late in the day, and I wanted to hold the depth of the pyrotechnics."

Aside from creating stylized but believable space battles,



Beginning with a charred hunk of alien flesh, a dexterous cloning device reassembles Leeloo's body piece by piece. This dazzling CGI effects sequence was realized via Softimage software.



Digital Domain's crew had to envision Evil (with a capital E) for Besson's fantastic tale. Audiences first glimpse Evil when a massive warship encounters a glowing, planet-sized ball of lava. Responding to its potential menace, a phalanx of cruisers fire three missiles at it. This tactic, however, only serves to make the vast orb larger — and angrier. When the warships foolishly fire more missiles into Evil, the sphere spits out a ball of flame that engulfs the craft.

The Evil effect was realized with Renderman, Prisms, Alias and proprietary software manipulated by a crew of CG artists overseen by digital effects supervisor Karen Goulekas. "We worked for a long time to develop the look of the crust and lava, and

the activity that occurs when they meet," Goulekas says. "We developed a three-step process to create the look of the surface that greatly reduced rendering time. First, Paul Van Camp wrote a fractal generator to create fractal-animated texture and displacement maps of lava and crust. Then, additional twisting and bulging was added on top of these maps in Elastic Reality, a 2-D morphing program. Finally, the resulting maps were fed into a Renderman Shader to apply the crust and lava and their accompanying displacement on a sphere based on height fields, which condensed six hours of render time to a half hour per frame."

Evil often appears to be a deceptively simple presence, but Goulekas found the amorphous

anomaly terribly complex to animate: "It wasn't easy to control the lava and the crust, because Luc wanted Evil to do some really specific things: when it closed up, it had to crust over and turn black, after which the crust had to rotate. The hardest thing was making Evil get angry and grow when the missiles were shot at it. Luc didn't want it to just scale up, which would have looked as if we were zooming in on a sphere, and neither did we. Using math expressions, Paul Van Camp came up with a way to expand it in a very non-linear fashion so the ball became more amorphous and felt as if it were actually growing."

As Evil encroaches, Besson returns to outer space sporadically throughout the film. After the film's protagonists — cab driver Korben Dallas (Bruce Willis) and the cryptically beguiling Leeloo (Milla Jovovich) — meet on Earth, they take a space shuttle out of New York City and rendezvous with a spectacular 2,000' pleasure ship (the *Fhloston Paradise*) hovering above the surface of an idyllic water planet. Their mission: rendezvous with an alien opera diva aboard this futuristic Love Boat.

The diva sequence begins as the space shuttle docks with the orbiting cruise ship, which sports a garish paint job in a hue that Stetson terms as "candy apple

blue." Naturally, the reflective nature of the paint made the 8' miniature difficult to shoot. As with all of *The Fifth Element*'s models, Bill Neil shot the *Fhloston Paradise* using the backlit UV technique Digital Domain pioneered on *Apollo 13*. The frontlit beauty, key and fill passes were filmed against black; a backlight pass was then shot, with a screen painted with UV-sensitive paint positioned behind the model. When hit with a Kino Flo, the screen fluoresces a very narrow bandwidth frequency of red, making the model appear as a black silhouette against red. The backlit image only registers on the red layer of the film, creating a perfect matte while allowing a fair amount of reflective glow to extend beyond the model's surface — an extra touch that would have been lost using traditional greenscreen techniques.

Neil had concerns about how the intensely blue spacecraft would appear when photographed. He recalls, "It was quite shiny initially, so we found a good balance between gloss and semi-matte, where it picked up the light nicely and still had some sheen to it. I did some lighting tests, wedging the miniature to see how it behaved in the light, and found that by overexposing it significantly, it just got richer and richer. It was strange; the paint itself actually glowed. I played around with the exposure until I found a look I thought was suitable to a tropical environment."

In keeping with the diva sequence's color motif, a stunning blue alien, replete with six tentacles protruding from her head, sings before a packed concert hall aboard the cruise ship. Angles looking over the diva's shoulder

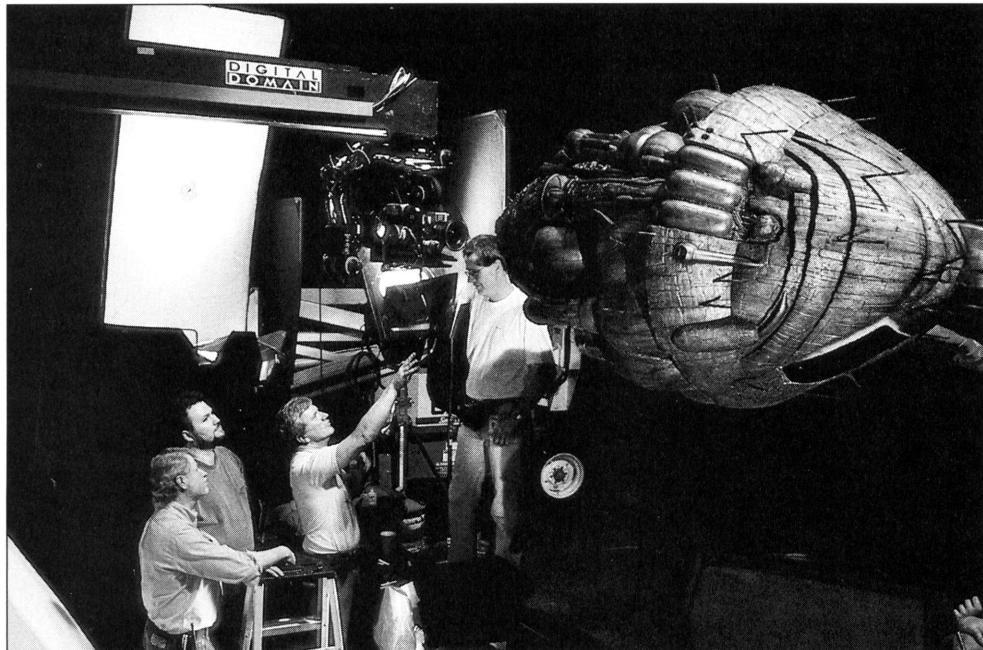
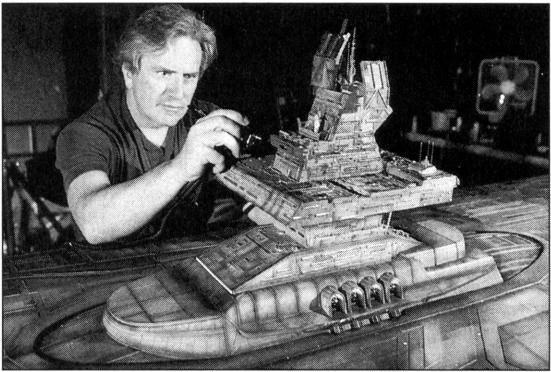
at the crowd were actually shot on location at London's Covent Garden Royal Opera House, but the reverse angles were shot against greenscreen on a stage at Pinewood Studios. The greenscreen shots were originally supposed to be lock-offs, but when Stetson, Goulekas

and Neil arrived on the set, they found that Besson had once again set up dolly tracks.

Mike Bergstrom, who handled the encoding equipment, quickly swapped the head on the production camera with a duplicate encoding head. Goulekas plastered the greenscreen with ping-pong balls for tracking reference points. Meanwhile, Stetson was concerned about the reflective sheen of the diva's costume. "[Makeup artist] Nick Dudman used a material that was very specular and diffractive," Stetson says. "When we looked at the greenscreen element of the diva in this shiny blue suit, we thought, 'Oh God, what are we going to get out of this?'"

Fortunately, Neil had been busily advising his first-unit

Right:
Additional detail is added to one of Earth's warships at Digital Domain.
Below: The football-shaped Mondoshawan craft is put through its paces before being "destroyed."





The Fhlostin
Paradise hovers
above the
surface of an
idyllic water
planet created
using Arete, the
same software
employed on
Waterworld.
The reflective
nature of the
six-foot
miniature ship's
paint job made
it difficult to
shoot. As with
all of *The Fifth
Element*'s
models, Bill
Neil shot the
craft using the
backlit UV
technique.
Digital Domain
pioneered on
Apollo 13.

colleague Arbogast to ensure that the effects team received a solid greenscreen backing. "I convinced Thierry to adjust his lighting in order to improve the possibilities of pulling mattes off this semi-metallic costume," Neil recalls. "He added some sidelight to the stage; he hadn't originally planned to do that, but it helped us to control the green spill from the costume."

The fun really began once Stetson and Goulekas returned to Digital Domain, where the entire background — including a huge picture window framed by giant steel arches, offering a view of the planet Fhlostin floating in space — was created as a 2-D digital matte painting. The blue water planet itself was a CG creation, with digitally painted skies and clouds created by art director Ron Gress.

Although Besson and Arbogast shot the diva's performance from the dolly track, Goulekas reports that "Luc pretty much delivered lock-offs with a little bit of camera drift in them, so we figured we didn't have to go with the encoded data, we'd just go traditional 2-D, track the ping-pong markers to get our X and Y translation curves, and then apply them to our CG background."

Despite the apparent ease of lining up the 2-D matte, Goulekas' team was sweating to create the correct perspective for the stage and arches by eye. In a breakthrough concept, Goulekas and compositing supervisor Jonathan Egstad imported the en-

coded dolly move into Nuke, Digital Domain's proprietary compositing software. "Suddenly, all of the tilts, pans and elements looked correct," Goulekas marvels. "There's actually a 3-D tilt on the matte painting of the arches, and the shadows cast by the arches onto the stage were mathematically worked out to move in perspective along with the camera. I'm pretty proud of those; they really involved a lot of three-dimensional thought and built-in camera perspective."

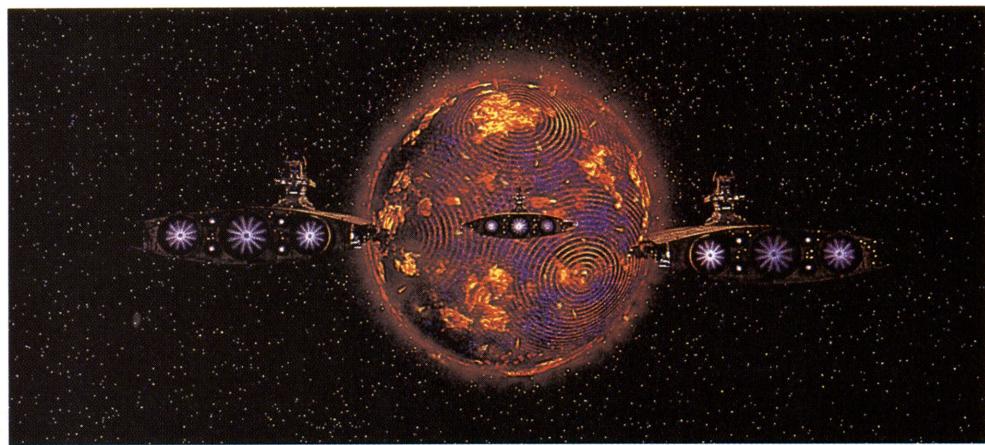
A similar technique helped tie *The Fifth Element*'s most spectacular blend of miniatures, CG models and digital matte paintings together in an awe-inspiring police chase through a futuristic New York City that extends 200 stories above the old city streets and 400 stories below. Both the police cars and their quarry, a beat-up cab belonging to Korben Dallas, are airborne — as are all of the other cars in the scene.

The complexity of creating these squadrons of flying vehicles convinced Karen Goulekas of the need to devise a procedural pipeline that would enable many artists to generate traffic, and to employ the same software in the pre-visualizations her team was doing for Besson. Thus, in theory, the preparatory camera moves could later be translated to the motion-control stage and employed to blend the miniatures, CG models and matte paintings together. "In London, we used Sili-

con Graphics' Prisms software for the pre-vis," Goulekas says. "It was our first big pre-vis ever at Digital Domain, so initially there was an inclination to do it with a less expensive software package. But I really balked at that idea. Rather than re-creating the pre-vis for real on another software package, Mark wanted the pre-vis to be able to roll right into production. That way, we could cut together the whole sequence with flat-shaded cities in CG; when we got back to Digital Domain, we could send those tapes out to stage so the crew would not only have a camera curve, but also a visual animation of what the shot was supposed to look like."

Beyond establishing camera moves and shot angles, the Prisms pre-visualization helped Stetson and model-shop supervisor Neils Neilson determine the scope of miniature construction. Cunningham set up the software so that he could alter the scale of the buildings without having to re-animate each shot, which enabled Stetson to experiment with various scales until he found the perfect match for the height and width of Digital Domain's motion-control stage. "We modeled the stage environment as well," Stetson explains, "so we could see whether or not our miniature cityscapes would fit into Digital Domain's stage. Then we color-coded the buildings in the pre-vis so we knew when we were past the limits of the stage."

"It was a bounding box," Goulekas adds. "As soon as we got



Top: A flying restaurant craft makes its way through the canyons of Manhattan, adding another fanciful Oriental touch to Element's multicultural design. **Bottom:** Earth's warships confront the ball of Evil, which was realized with Alias software manipulated by a crew of CG artists overseen by digital effects supervisor Karen Goulekas.

30' or 40' out from the camera and hit the stage floor, everything that got rendered out turned red, so we automatically knew what was CG or a matte painting or miniature buildings."

Stetson passed drawings and blueprints back and forth to effects art directors Ron Gress and Ira Gilford to get the cityscape designed and into Digital Domain's modelshop, allowing construction to begin before Stetson returned from England. This was a stressful process since Besson and production designer Dan Weil insisted on a retro vision of New York City that would maintain the regimented order of its streets even as it climbed hundreds of stories upward. Some of the structures had to look as if they had been built right on top of older buildings, which would be squared off under reinforced glass cases.

"Luc and Dan saw our cities differently than any director and production designer I've worked with before," says Stetson, "and I've built New York probably six times! One of Dan Weil's ear-

liest statements to me was, 'A Frenchman looks at Manhattan and sees a completely different city structure than a classical European city.' Unlike Paris or London, with their rat's nests of tiny streets, New York doesn't have curves or T-intersections — it's all about the Grid. New York has perspectives to infinity, which corresponded very strongly with Luc Besson's cinematographic style for this picture — center-focused, with one-point perspectives and vanishing points at the crosshairs."

Although to creating streets that seemingly stretched on forever proved difficult, Stetson eventually went with $1/24$ -scale for *Element's* New York City (the same scale he had employed for *The Hudsucker Proxy* and *The Shadow*). "A scale of $1/24$ is about as small as you can get for modern cameras," he says. "We had maybe 24 to 30 miniature buildings and they were quite large — up to 24' tall by 40' deep, which filled Digital Domain's main double stage. We had a few shots that were entirely miniature backgrounds, but most

of the time we ended up extending the set very creatively with 2-D matte paintings. There were about five shots in which the cityscape was entirely represented by CG. But there was very little live-action production representation in terms of exterior sets for the city. It was left almost entirely to us."

With Stetson, Goulekas and Neil still in England shooting the few full-scale setpieces for Leeloo's escape (in which she first sees the enormous New York megalopolis before falling into Korben's cab and leading the police on a chase above and below Times Square), Digital Domain's model shop got the miniatures to stage. "A month after we got back, we started shooting models," Stetson recalls. "For the first time at this facility, Karen was able to actually export camera moves to stage. Instead of it being a one-way street — with motion-control moves recorded and then sent to the CG world — we actually put the pre-vis camera moves into motion-control files. Sometimes that worked as advertised, and sometimes it only panned out to a lesser

"One of Dan Weil's earliest statements to me was, 'A Frenchman looks at Manhattan and sees a completely different city structure than a classical European city.' Unlike Paris or London, ... New York doesn't have curves or T-intersections — it's all about the Grid."

— Mark Stetson

degree. Next time, we'll make a more accurate CG model of the motion-control axes so we can mimic the camera's moves and limitations more exactly. Still, we created that pathway, and we're proud of it. We looked at each other after it was done and said, 'We actually succeeded!'

The 3-D space in the pre-visualization didn't always relate to the physical stage, but effects cinematographer Bill Neil and his associate, Paul Gentry, found it to



Broadcast Camera Image Rendered in ElectricImage, Modeled by David Rindner, Rendered by Andrew Hardaway; Monitor Images Top Left to Bottom Left: "Fox Park" By Kory Jones, Courtesy of Fox Sports Graphics; "Sci-Fi Channel" Director, On-Air Promotions: Ken Krupka, Design & Animation: Nick Ericson Studio, Produced by Atlantic Motion Pictures; "The Adventures of Brisco County, Jr." Courtesy Warner Bros. and Dream Quest Images; "JAG" JAG Footage Courtesy of: Dream Quest Images, Bellisario Productions and Paramount Pictures; "Babylon 5" ©1995 PTN Consortium, Courtesy of Babylonian Productions, Inc. and Warner Bros. Domestic Television Distribution, Digital Matte Painting by Eric Chouvin; "ABC Saturday Morning Promo" Designed and Directed by 1@it2'd Animator: Scott Simmons; "The E! Movie Open" Courtesy of E! Entertainment Television, Creative Director: Andy Horn, Designer: Dale Hengstad Producer: Karin Rainey; "Tx Spotlight" ©9721d, Courtesy of fx network; "The Sentinel" BB&J Visual Effects 3D Artist: Cory Strassburger, Courtesy of Paramount Pictures, Inc.; "Fox Tuesday Night Movie" Bylon Lee, Designer & Director Geoff Hull, courtesy Fox On-Air Promo; "NBC 6 Cyber ID" and "NBC Nest Egg" WTVJ NBC 6 Miami, FL, Animation by Edward Wiseman.

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"Dateline NBC" Opening Production by the LePrevost Corp., Director: Guy Pepper, Animation/Graphics Director: Ralph Famiglietta Jr., Animation/Rendering by See3.



be useful, if only as a timing guide. Neil explains, "It was a wonderful communications tool between the visual effects team and the director to help clarify what his vision contained, and to reach a common understanding."

Neil insisted on shooting the city background plates before filming the cars in order to create interactive light on the vehicles that would relate to their environment. Although Besson's center-focused perspective ran contrary to Neil's experience in composition, the cameraman found that it offered some interesting problems to solve — such as creating depth when shooting a limited number of buildings being elongated to infinity via digital matte paintings.

Adding to this challenge was Besson's directive that the sequence occur in broad daylight. "I was shocked," admits Neil. "Miniatures are often saved by the fact that you don't see much of them, but this whole sequence took place late in the day, and it had to hold up to scrutiny. The stage ceiling was only a few feet above the top of the buildings, so we did tests to see how we could light that expanse of vista. Fortunately, my gaffer, George Ball, and my key grip, Joe Celeste, were able to realize my ideas on the stage. We had a general sky light that came from the top, and then a golden key light that was supposed to be the late day sun raking through any gaps between the buildings. But instead of having key light all coming from roughly the same direction, I took what I came to call a 'fractured light approach,' where I added broken light coming off buildings that were not in frame, often at steep angles, reflecting back in the opposite direction from the sunlight key. That gave the city an energy, a modulation of the light that was quite wonderful."

"I also built aerial perspective into the scene so that as the distance from camera increased, the contrast of the scene decreased. Dark things become lighter and light things become darker until ultimately they become monotone. I took that into account in my miniature lighting, and that carried through in the

matte painting, which gave us great depth in the streets."

Stetson had set some basic specs for the kinds of motion-control rigs needed to shoot down into the canyon of buildings toward the floor: "I wanted to fly the camera from the stage ceiling down into the miniature, so we put the camera on a crucifix motion-control rig, a motion-control crane with a vertical tower for descent and a horizontal crossbeam for forward motion."

Stetson also planned to thread the camera on a 20' extension arm through the miniature streets. At four feet wide, the streets were too narrow for Neil's motion-control camera to run along a horizontal track between the buildings. For the chase's climax, when Korben's cab is pursued below the city through a girder-walled tunnel beneath an underground railroad, Stetson expected Neil to use the extension arm to travel into the $\frac{1}{6}$ -scale tunnel model. Although the miniature set measured 48', it still wasn't long enough for the high-speed chase. "We made it appear twice as long by shooting it twice, the second time with the camera displaced 48' back," Stetson says. "We needed a very long camera track and two sets of mattes to complete it, but the pieces lined up perfectly with Karen's help. The tunnel chase was almost entirely miniature. Brian Grill some CG debris, some 2-D debris, and smoke resurrected from prior shows to sweeten the scene. The cab is in the foreground, the vanishing point is in the center, and there's a lot of weaving and bobbing."

At five minutes and 70-plus shots, the cab-chase sequence represents nearly a third of Digital Domain's *Fifth Element* effects. Most of the shots involve CG traffic, and sometimes CG hero cabs and police cars. "We digitized the $\frac{1}{6}$ -scale [models of] Korben's cab and the cop car," Goulekas says. "The hero police car dives down following Leeloo's jump was done in CG because we wanted to see all six surfaces; there was no place to hide an armature mount. You'd be surprised. Our CG traffic pipeline enabled us to say, 'We want a cer-

tain percentage of cabs, police cars, red cars, blue cars.' The artists worked with low-res versions of the traffic, and then we'd substitute the real traffic on the output on the renderer."

Sequence supervisor Sean Cunningham coordinated the creation of all of the pieces for the cab chase, and shader supervisor Simon O'Connor conceived all of the shaders and surfaces for the traffic. But putting all the different elements together fell to compositing supervisor Egstad. "Getting the color balance and the contrast range of all the objects matching properly in daytime was a big challenge," Egstad says. "We composited hundreds of computer-graphics cars, which wouldn't fit unless we blurred them a little and boosted their contrast. Also, matte edges aren't nearly as forgiving, so we used a number of different atmospheric tricks, like adding density fog and using filters in Flame to add a nice optical glow from headlights and take the curse off the CG objects."

Amid the craziness of production, Stetson was left to his own artistic instincts in terms of directing the development of the cityscape — a potentially dangerous situation. "We'd walk Luc onto the stage when we were shooting, but he'd just look at stuff without any reaction, because he was totally absorbed with directing his actors," Stetson recalls. "Had I been really wrong about what Luc wanted, it would've cost us horribly in terms of time and money."

"Finally, when we had traveled way past the point of no return designwise, I went to his editing suite in Malibu and showed him a color print of a test shot of one of the first big model setups of the city, which represented hundreds of thousands of dollars' worth of work. Up to that point, it was unknown whether he was going to bless it or not. Luc looked at it and his face just lit up completely. He held up the picture to show his editor, Sylvie Landra, pointed to it and then pointed to his face with this big smile on it. He really loved it. That was a huge relief."

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A Life of Color and Light

Cinematographer Edward Lachman, ASC weaves a richly hued visual tapestry for writer/director Gregory Nava's *Selena*.

by David E. Williams



Photos by Scott Del Amo and Rico Torres, courtesy of Warner Bros.

On March 31, 1995, Grammy Award-winning Tejano singer Selena Quintanilla Perez was murdered in Corpus Christi, TX by the president of her popular fan club. She was 23 years old and on the verge of popular success beyond her already huge loyal following. Even as the media scrutiny of this tragic event and her killer's subsequent trial were still swirling, the

bereaved Quintanilla family turned to writer/director Gregory Nava to tell the tale of their daughter's rise from humble beginnings to stardom.

In Nava's pictures *El Norte* (1983) — about two Guatemalan refugees who endure hardships on their way to the U.S. border — and *Mi Familia* (1995) — about a Mexican-American family's history

since immigrating to Los Angeles in the 1920s — the filmmaker addressed the modern immigrant experience. Within Selena's story he recognized the opportunity to not only introduce the performer to new audiences, but to illustrate many underlying issues. Nava explains, "Selena's story is all-American, just as she was an all-American girl. But it involves bigger themes because of the nature of the Latino culture she's a part of, an integral part of the fabric of American life which has not always been well-accepted."

Nava quickly brought in cinematographer Edward Lachman, ASC, with whom he had collaborated with on *Mi Familia*. "Our established relationship gave us a head start on this new film," says Nava. "I could depend on Ed to realize and capture all of the things we were talking about, and make a huge contribution."

Like his director, Lachman also found an immediate connection with Selena's story, particularly as the young singer had constructed such a complex image of herself through performance, music videos, costumes, and even her own line of clothing. The cameraman offers, "Understanding the image she created involves immersing yourself in her interpretation of being a woman who crossed all barriers. She crossed the Latino barrier of a woman 'making it' in a professional sense. Given that she was a Mexican-American, the fact that she was accepted in Mexico was also very unusual.

"The film was also an opportunity to visually depict a life that began in the Anglo world and gradually made a transition into the Tejano culture — so there were interesting counterpoints to be made as different influences affected Selena."

Lachman's own career has also crossed cultural barriers. Following fine-art studies in Paris, he learned his craft while operating and doing second-unit photography for such international cameramen as Sven Nykvist, ASC; Vittorio Storaro, ASC, AIC; and Robby Müller, BVK, NSC, and later doing documentary and feature

work with such European directors as Werner Herzog, Wim Wenders, Rainer Werner Fassbinder, Volker Schlöndorff and Jean-Luc Godard. These mentors contributed to Lachman's aesthetic sense of framing, coverage and movement, while his painting background resulted in his understanding the use of colors and light to define character, definition, and mood.

After becoming a director of photography himself, Lachman's work on *Union City* (1980), a modern film noir which benefitted from his use of colored lighting and richly hued sets, brought him to the attention of New York filmmaker Susan Seidelman. Their first collaboration, *Desperately Seeking Susan* (see AC July 1985), a comic depiction of Soho lifestyles colliding with suburban sensibilities, was his first studio-sponsored film.

In addition to many documentary projects, Lachman's feature credits include *The Lords of Flatbush*, *Lighting Over Water*, *Less Than Zero*, *Making Mr. Right*, *Backtrack*, *London Kills Me*, *Mississippi Masala*, *My New Gun* and *Mi*

Familia. Most recently, he shot the sly comedy *Touch* for director Paul Schrader.

Lachman's work has earned him IFP Independent Spirit Award nominations for both *True Stories* and *Light Sleeper*; the Latin American Award for Best Cinematography for *The Day You Love Me*; the Kodak Award for Outstanding Achievement in 1995; the Hawaiian Film Festival's Golden Maile Award; and the Mezzominuto D'Oro, the Italian equivalent of a Clio Award.

"Gregory and I approached the filming of *Selena* very much the way we did *Mi Familia*," begins Lachman. "It's an ensemble method of shooting. Because there are often many characters in the scenes, we don't rehearse a lot, but we do rehearse through the camera. That's how we decide upon the coverage."

Nava elaborates, "There are things I storyboard, but I prefer to bring the actors together into a fantastic situation or location and see what life and reality they bring to it. That way we can get things cooking in a lively, spontaneous way. Ed and I can then look at that and together decide how to best capture it on film."

Says Lachman, "We often used a multi-camera approach to capture the interplay between performers. Then we would decide what coverage was needed to bridge those shots in the editing room. In that way, we shot *Selena* like a documentary, which gave the actors more freedom to be naturalistic. To me, photography is about point of view on the performance, not dictating that the actors follow the camera."



While this improvisational method formed the basis of the duo's working relationship, Nava considered it equally crucial to instill in Lachman a strong understanding of Latino culture, so that the cameraman could utilize his lighting and imagery in a congruous manner. "Gregory showed me how Latino artists see their own community," explains Lachman. "As a visual reference on *Selena*, we worked with a Tejano artist named Carmen Lomen Garza to learn how she saw and painted her own culture. So we used references from within Latino culture, rather than coming from the outside and picking out things that just 'looked interesting.' This helped us avoid visual clichés. For instance, just because people are poor doesn't mean they don't try to make their life interesting, festive, or creative, which is what we did in scenes depicting Selena's youth, when her family was quite poor."

Says Nava of Garza's work, "Her landscapes of Texas suggested a dynamic technique to capture scenes between people with a lot of spontaneity and color in open, horizontal compositions. To get that feeling, we shot the film in 2.35:1 Super 35. In that way, the film is like Texas. It's giant."

Says Lachman, "This was

Opposite:
Selena
(Jennifer Lopez)
shines onstage.
This page top:
Selena and
Chris (Jon
Seda) share an
intimate
moment while
on the road.
Lachman found
that the 2.35:1
frame greatly
opened up
cramped
interiors and
naturally
suggested
shots that
encompassed
multiple
characters,
heightening the
film's sense of
family. Below:
Expressive
colors add to a
romantic
interlude.



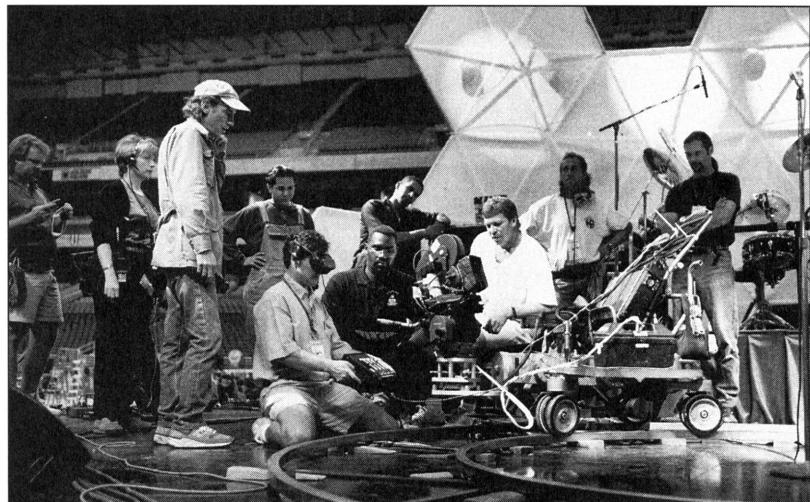
Above:
Lachman cranes in for a high-angle view. Selena's opening concert sequence was filmed at San Antonio's Alamodome with 25,000 volunteer extras. The rotating stage was primarily lit with rock 'n' roll fixtures and computer-controlled luminaires. The equipment, Selena's own, was supplied by the Quintanilla family. Right: Lachman oversees the use of the Vision III MOE imaging system, which is tuned to the desired depth enhancement level via a microcomputer and headset display.

my first film in Super 35, so I did a lot of tests with lenses. I also shot different portions of the film with different sets of lenses. For scenes taking place in the 1950s and 60s — depicting Selena's father Abraham [Edward James Olmos] and his own musical career — I used Cooke Pancros. When people made films in that period, those were the kinds of lenses they were using. They're warmer and more forgiving, and offer a softer palette.

"For the contemporary periods, I shot with Zeiss high-speed lenses, which I normally wouldn't use to shoot day exteriors. I usually shoot with them only at night or to get a more edgy look. But on this picture I wanted the lenses to be sharp and to have a sense of presence. I was also questioning the [optical] coverage. Not all lenses render the same in Super 35 because, in addition to the best part of the lens — the center — you're also using the edge portion that covers the soundtrack area. I like extreme lenses — from 1000mm to 10mm wide-angle lenses.

"I used zooms only in the concert scenes," he adds. "I also used very little lens diffusion because we were going through an optical stage to get our internegatives. That would be the diffusion. I

only used additional diffusion for shots of Abraham's wife, Marcella [played by Constance Marie], because she was wearing old-age makeup and the softness helps that effect.



Selena is Nava's first wide-screen picture, and working with the 2.35:1 frame integrated well with his compositional approach. "I always like the framing to follow the life of the story, what the actors are doing, and the location we're in," the filmmaker says. "If you start with a frame in mind and then try to make the actress fit it, you're setting up constraints on her performance.

"The 2.35 frame lends itself to more Steadicam and one-shot setups with two or three people in the composition at the same time," he opines. "The clean single starts to become a rarity because people in natural situations — talking to each other or interacting — will be part of the frame because of the use of a wide format. So you're often dealing with two-shots, whereas in 1.85 you can do a lot more clean singles."

Lachman agrees, adding, "I like the feeling that things are encroaching the frame, that it isn't perfect. I'm always looking for what's visceral and unbalanced in the frame.

"There is the belief that 2.35 is best for wide-open spaces, but the Super 35 format really opened up our smaller locations — houses, motel rooms, van interiors.

"I've always revered the work of [renowned Mexican cinematographer] Gabriel Figueroa, particularly in terms of spatial relationships within the frame and an absence of light to create monumental landscapes and interiors in his imagery. And because we were

using a widescreen format I felt like I was always looking for his frames.

"Also, in 2.35, an 18mm lens gives you a sense of the field of view of a 25mm lens [in 1.85], because the frame is narrower. I often used wider lenses to get the same field of view I'd usually use in 1.85. I've grown to like the format a lot. It allowed me the flexibility of using a lighter camera system and a



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Allen Daviau^{ASC}

Allen Daviau has earned Oscar® nominations for *E.T.: The Extraterrestrial*, *The Color Purple*, *Avalon*, *Empire of the Sun* and *Bugsy*. He won ASC Outstanding Achievement Awards for the latter two films. His other narrative credits include *The Falcon and the Snowman* and *Fearless*. Daviau has also filmed a myriad of TV commercials and music videos.

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While writer/director Gregory Nava did preplan the film's concert sequences, he notes, "we relied less and less on our storyboarded coverage as we went along, and instead followed what Jennifer Lopez was doing. A lot of this footage has come out even more spectacularly and sensationally than what was planned."

lower T-stop, and there's a lot to see when you're looking through the viewfinder."

For *Selena*, Lachman relied on the Moviecam, which he has used since its introduction in the early Eighties. In fact, *Desperately Seeking Susan* was the first feature shot in the U.S. with the Austrian camera. "I like the Moviecam because it's small, very quiet and user-friendly, and I can convert it from Steadicam to studio mode within 5 minutes," he attests. "We used two of them on *Selena*. My camera operator was Kirk Gardner, who also did our Steadicam work. I met him on *Mi Familia*, and he's one of the most versatile Steadicam operators I've ever worked with. Kirk and his assistant, Emil Hampton, make a great team. It's one thing to make a move and a frame, but it's another to create compositions that are arresting and movements that are in rhythm with the scene."

Another key visual influence on *Selena* was the filmmakers' access to the Quintanilla family's archive of home movies. Shot on Super 8 and video, they document the young woman's career from the age of nine. Says Nava, "Through them, we got a flavor of what it was like when they were touring. I wanted to capture that

feeling of immediacy by shooting some home-movie-style scenes on video and Super 8 and integrating them into the picture."

"We used a lot of different formats," says Lachman. "So another part of the reason to shoot in Super 35 was to encompass the other formats in its wide frame as triptych panels, as Abel Gance did in *Napoleon* [1927]. These images could also be from different viewpoints. One perspective is that of Suzette, Selena's sister, who shot a lot of these movies.

"Another influence for this approach was the work of the 19th-century Japanese artist Hiroshige, who placed multiple woodblock prints together, which today would be considered a widescreen format. He is also well-known for a work titled *53 Stages of Tokaido*, which created the idea of a journey through a landscape. In our film, Texas is the landscape, which serves as a metaphor for the journey of Selena's life."

"So while the film was mainly shot in Super 35," says Nava, "we also did scenes with Super 16mm, Super 8, Panasonic's DVC-PRO video format, Sony's DCR-VX1000 digital camera, and with a standard VHS camcorder.

"Barbara Martinez Jitner, our alternate media supervisor,

oversaw the use of the Super 8 and video. She coordinated, shot, and directed a lot of it."

Jitner's previous film experience was primarily with music videos (for bands such as Los Lobos) and documentary work within the Latino community (including films for such organizations as the United Farm Workers). She says that with a few exceptions, Super 16 was ruled out for the "home movie" portions of the film, as "Ed was concerned that it wouldn't be different enough from 35mm. In order to get the look we wanted, we decided to go with Super 8. I used all of the Super 8 reversal stocks — Kodachrome, Ektachrome, Tri-X, Plus-X — and Ed and I also ordered the same negative stocks as well. When he shot on 5293, he wanted me to shoot on 93, and I would also use the same exposures he used."

Lachman regularly uses an array of stocks on each picture, capitalizing on their particular attributes. On *Selena*, the cameraman used Kodak's 5245, 48, 93 and Vision 79, all processed at CFI. He details, "All of my night interiors and exteriors were done on 79. For day interiors I used 93. Outdoors, depending on the light, I shot on either 45 or 48. For the period portions of this film, I used the 45 for the earlier sequences and 48 for the later ones. On the earlier scenes, I also used a very light chocolate filter — a light sepia."

"I worked very closely with Art Tostado at CFI, who helped with the film through the answer-print stage."

The S8 neg stocks were supplied and processed by Burbank-based Super 8 Sound, which has been remanufacturing Kodak 35mm stocks for S8 use since 1993 (see *AC* Nov. 1996). Says Jitner, "Basically, I'd often cover a scene with a lot of different stocks just to have many different textures. We primarily shot them with a Beaulieu 7008 equipped with an Angenieux zoom, which we got from Super 8 Sound. We used a blimp so we could shoot simultaneously with the first unit."

"We experimented a lot with how each Super 8 stock was going to look when we blew it up



Round of Applause

“Selena”

Gregory Nava & Edward Lachman, A.S.C.



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Local Facilities Join Forces on "Colorful" Job

by Debra Kaufman

*S*elena presented some unique challenges, especially with regard to color, for Los Angeles-area postproduction houses Warner Digital, 525 Post Production, and CFI. The film's principal location photography took place in Texas between September and November of 1996; all of the dailies were processed at CFI in Hollywood, where lab contact/color timer Art Tostado oversaw film processing for the daily prints, which were delivered to the location.

Notes Tostado of collaborating with cinematographer Ed Lachman, ASC, "I've never seen a cameraman who works with such extreme colors. He has a great love for using and mixing primary colors with complementary colors in the sets and in the film as a whole. He'll push you to the limits, and when you fall off, he'll enjoy the ride down."

The challenge of working with the colors in *Selena* continued past the dailies stage. The picture features several segments in which the 2.35:1 frame is split into a "triptych" juxtaposing home movie-style video and Super 8 footage with 35mm images shot by Lachman. One of the biggest tasks with regard to these triptych sequences was integrating the color of images that came from a range of sources.

525 Post Production worked with director Gregory Nava, visual effects supervisor David Garber and alternate media supervisor Barbara Martinez Jitner to create this three minute tri-image "tribute sequence" at the film's end. According to 525 Post producer Neysa Horsburgh, this home video footage came into the facility in a range of formats: VHS; Hi8 video; and Super 8 film.

The first challenge was to "up-rez" (increase the resolution of) the home video elements so

they would meld with the 35mm negative. "In video, you have 720 x 486 pixels. With film, you go to 2048 x 1556, or what we call 2K," explains Horsburgh. "We up-rezzed the video using software we wrote in-house. Basically, we resize the image; an algorithm extrapolates from pixel to pixel and creates new pixels in high resolution."

The second step was to color-correct these home video images and create a grain structure that matched the 35mm film. 525 Post visual effects artist Alex Frisch did just that using Discreet Logic's Inferno software. "One of the new features of Inferno is a new grain-management tool that allows you to analyze the grain structure of a reference shot that you want to match, and then apply that same grain structure to another shot — in this case, the home video movies that have been up-rezzed," says Frisch. "These images had a very big grain structure because they were low-resolution elements. We had to first de-grain it, and then apply the grain that was analyzed from the reference shot."

Frisch also used the Inferno for color correction. "We use the Inferno a little bit like we use Pogle or daVinci in a telecine," explains Horsburgh. "We had to color-correct each shot from the home video footage because the colors were all over the place. Some shots were totally colorful, and others didn't have much color at all. The idea was to maintain the original look of the shots, but adjust them so they would be more consistent colorwise. We corrected with color dominance to maintain color consistency among all three images in the triptych. The Inferno's color correction tool is very, very powerful, and allowed us to do everything we wanted."

Frisch's next task was to composite the images of the triptych. He says, "I positioned the three images in three shapes. The panels weren't of equal size, with two-quarters in the middle and one quarter on either side. Those sizes also varied during the sequence, because the framing came back to two images and even one. The compositing was pretty simple because it was only

to 2.35. With the reversal footage, we went to Monaco Labs [in San Francisco] and had them optically blow it up. For the negative stocks, we telecine-transferred to Digital Beta at 525 Post Production. Then we did two processes. We either took the master to 4MC, where they would output that to film negative, or brought pieces into an SGI platform to construct sequences using Inferno and then output back to film.

"We soon realized that the Super 8 image started to fall apart when we went to a 2.35 frame, so we decided to play with aspect ratios in regard to all the formats. The beginning of the film is shot in Super 16, at 1.66:1. The minute the title sequence ends and Selena walks onstage, the image becomes Super 35 and we go to a 2.35 frame. Within that, the home movie and media sequences — in both video and Super 8 — are at 1.33. So we had 1:66 and 1:33 aspect ratios to play within the widescreen frame."

On the subject of lighting, Nava comments, "Ed and his gaffer, John Deblau, do a great job of creating lighting that is naturalistic but extremely beautiful. I like things to be real, but still striking and a bit dreamlike."

Describing his approach, Lachman offers, "It often becomes more about the light in the space, or the room, or the area, than about trying to light specific people in the space. To me, that type of approach can result in more honest images. Conrad Hall [ASC], whom I greatly respect, once said to me, 'Why does everybody always have to be standing in perfect, beautifully rimmed light? Light doesn't always fall that way in real life.'

"I lit many scenes for *Selena* in hotels and motels, literally from the lightbulbs in the fixtures. I didn't mind the shades burning out, because that gives you the feeling that the light was emanating from those sources — I'd just control the look with ND gels. I'd also let exterior windows burn out over three stops but still hold detail, while many scenes on the tour bus were done with available light. Shooting with the new Kodak Vision 500T stock in low light situations, if you can see it, the film

will read it. It's a process of not overlighting the stock, which is faster than 500ASA. It could be rated at 600 or 640.

John Deblau is also from the school of 'working with what's there.' We've lit scenes with Par cans rather than 20Ks. They have the same intensity of light, just maybe not the spread. In a set or on location, I like bouncing light warmed with CTO or light amber off the walls to get the color from the wall, rather than coming off a piece of foamcore. When you see it, you'll believe it's sunlight."

Lachman doesn't always adhere to a minimalist approach to lighting, however. "I have 18Ks and 20Ks for one-source lighting," he admits, "but I often try to simplify the technical end to get to the human core of the story, especially in a film like *Selena*."

Discussing the color palette suggested by the film's Tejano roots, Nava explains, "Color is very important to Latinos. It's a part of our world, one that has a more intense use of color than the Anglo world. We used color to weave the emotions of the story."

This is not to say that Nava uses strictly uses color to dictate his characterizations or settings. "That gets obvious," he insists. "I try to make the connection more emotional, and also work off the reality of what exists. Certain periods of Selena's life and certain places reflect different colors."

Lachman explains, "Selena grew up in an Anglo neighborhood, so we used umbers and monotone colors to reflect that experience. Then, as she is introduced to her Latino heritage, we began to use more pastel primary colors, which are indicative of that culture and continue throughout the film."

The cameraman notes that this strategy was greatly aided by production designer Cary White and costume designer Elisabetta Beraldo.

The film's extensive location work definitely inspired Lachman, who submits, "I'm interested in what makes a location unique onto itself. If I see something like that, I try to capitalize on it. The hardest part of this film was

a matter of coming through a geometric matte. We came up with a few matte combinations, depending on when we needed them."

Warner Digital also worked on a triptych sequence for the Warner Bros. production. The facility's involvement began on a small scale, but quickly grew. According to visual effects producer Lindsay Burnett, WD agreed to do the work of filming-out (recording digital elements out to film) for the picture. In fact, since the company did the film-out of the tribute sequence, Burnett and a WD color supervisor attended a final color balancing of that sequence at 525 Post, with a "digital match clip" from their film recorder to ensure consistent color. "With the digital match clip, we had something that we knew had come out of our digital film recorders," explains Burnett. "Therefore, we were able to say, 'This is the color we're going for.' We could be sure that their look would be consistent with the look we had done, since we were doing all of the film-out."

At the final count, WD was responsible for filming-out approximately 32 shots, comprising between 12 and 15 different sequences. Burnett says that WD post supervisor Gary Parks and color specialists Dave Gregory, Rob White and Megan Bryant were instrumental in helping to pull off this difficult task.

During color correction, WD relies on proprietary software to numerically match pixel values. "Color correction played a major role, because the footage came from a variety of sources, and the color was really all over the place," Burnett observes. "To make them all match was extremely difficult, and color became a big issue in the beginning."

WD also took on the job of creating a sequence which depicts a concert in Mexico that unexpectedly attracted 25,000 attendees. As with the film's ending tribute sequence, the 2,700-frame scene was a triptych made up of newly shot 35mm footage juxtaposed with real home video elements. "The biggest challenge was to make the original scans match each other," admits

Burnett. "Some of the original scans we received were very washed-out, and we didn't have enough time to re-scan. And some of the shots are 500-frames long, which are big shots to color-correct and put on the camera."

"We'd pull up a frame on the monitor, and once we found a color we liked, we'd match them all numerically to that specific pixel value," she recounts. "Then we'd pull up another frame and compare it to make sure they were consistent visually."

The difficulty of color-matching was compounded in the concert sequence because the elements came from so many different film and video sources. After the sequence was color-corrected, WD compositor Jason Piccioni used Alias/Wavefront's Composer software to composite it. He also used Discreet Logic's Inferno to soften and sharpen video lines and to more quickly composite a couple of troublesome shots.

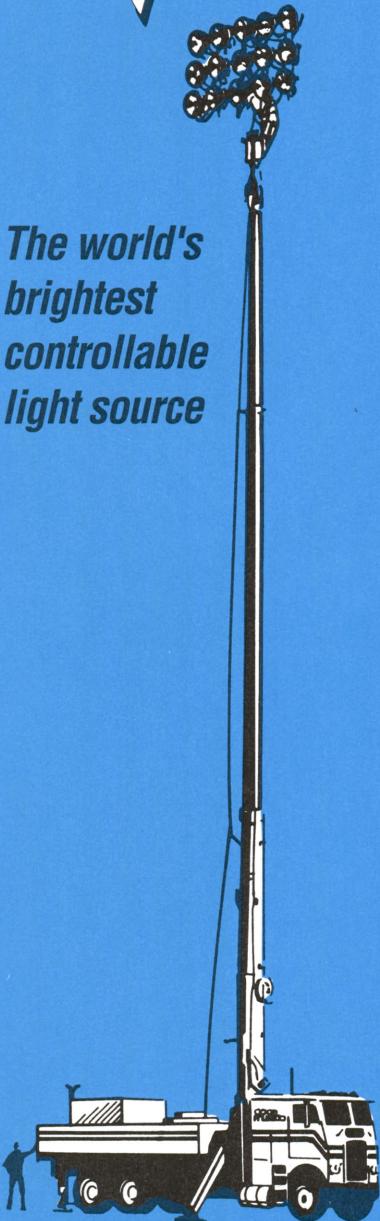
The film processing work on those triptych sequences also occurred at CFI. Tostado says it was difficult to preserve a variety of colors within the split screen. "There are a lot of visual effects in the film," he points out. "Ed Lachman worked to maintain the color in the effects and, of course, the lab worked with him as well. As far as the lab was concerned, it was challenging to work with the video material, try to get it incorporated into the film and make it look unique. We tried to time or colorize it in a mood that was appropriate to what the director wanted."

"What I learned from working with Ed was that we shouldn't be afraid to mix light and color to intense degrees," Tostado adds. "He pushes colors beyond the ordinary."

After the film's editorial was locked down, CFI began working on the final answer-print timing in anticipation of its March 21 release date. "The lab is where everything comes together," Tostado concludes. "No film is routine. The main challenge on this one was working with the primary and complementary colors that Ed was using in the lighting and set design."

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the constant question, 'What do I modify for a particular look, and what should stay as it is?'

"That was especially pertinent with regard to Tejano culture. I always want to be honest or true to their sensibilities about color, which are very rich. They think nothing of blending three, four or five colors that fight with each other or complement each other. I usually work with two colors in a scene, either contrasting or complementary. Many times I just went with what I saw. But there were a few times when I wanted to modify what was there. If I had done another scene that had any similarity, I changed it.

"In terms of lighting, color, and movement another interesting problem was that there is a lot of concert footage in *Selena*, and I wanted to give each concert a different feeling."

Aiding in the film's concert staging and lighting was Lachman's personal experiences with rock venues. "I worked on many concert films in the seventies and eighties like *Hail, Hail Rock and Roll*, an homage to Chuck Berry, and went on tour with the Rolling Stones in 1974," he recounts. "These situations gave me the experience to create a progression in the concert lighting for *Selena*. In the beginning of the film, the staging of her shows is more primitive because the family didn't have a lot of money to buy high-tech equipment. For their first shows, they made lights using colored bulbs and tomato cans — which we re-created for a sequence that takes place at the El Paso fair. As the film progresses, the lighting becomes more intricate. I tried to do that also to show the evolution of *Selena*'s career. I'm always looking for visual equivalents of the development in the characters."

For a dream concert sequence that takes place at the end of *Selena*, Lachman utilized a newly developed depth-enhancement system, adding yet another unique look to the film.

Developed by Christopher A. Mayhew and Vision III Imaging, Inc. of Herndon, VA, the innovative system is based on autostereoscopic technology (as

demonstrated in holography and lenticular screens). It utilizes circular parallax scanning, achieved with a moving optical element (MOE) lens, to create a strong sense of depth and texture.

Within this modified PL-mount lens, a continuous moving (scanning) viewpoint is used to create a pattern of sequential parallax views, which are recorded on a single strip of film or videotape. These views are created by way of an adjustable, rotating, off-center-axis iris mechanism. This circular scanning around the lens' nominal optical axis traces out a coaxial cone pattern with the convergence point as its apex, at the film plane. When such successive images are properly tuned and projected or displayed, the discrete parallax differences are perceived as enhanced texture and depth.

Currently, Vision III's MOE lenses are available as PL-mount primes (24mm T2.5, 35mm T1.85, 50mm T1.5, 85mm T2.15 and 135mm T3.15).

Notes Lachman, "This technology can be built into any kind of lens, such as Primos or Zeisses. The prototype lenses we used were built from scratch using Nikon glass. The concert sequence we shot using Vision III's gear will definitely stand out visually. You'll sense that something is different. The system also covered Super 35, so that wasn't a problem."

"The process gives you another dimension in imaging," offers Lachman, "just as stereo sound gave another dimension to music. You can walk up to the screen as it's being projected and almost feel as if you can see around an object."

While *Selena*'s visual approach is a feast for the senses, the filmmakers stress that actress Jennifer Lopez's performance is the key to the picture's success. Notes Lachman, whose upcoming film is John Malkovich's directorial debut *The Dancer Upstairs*, "Jennifer really understood and assimilated who *Selena* was and what she represented to people. But the tragic fact that *Selena*'s life ended the way it did is still beyond whatever we could do to celebrate her talent, courage and spirit."

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The 11th Annual ASC Awards for Outstanding Cinematography applaud excellence in the televisual realm.

by Christopher Probst

11TH ANNUAL ASC AWARDS TELEVISION NOMINEES

REGULAR SERIES

James R. Bagdonas, ASC
Chicago Hope, "Time to Kill"

John S. Bartley, CSC
The X-Files, "Grotesque"

Brian J. Reynolds
N.Y.P.D. Blue, "Closing Time"

Aaron Schneider *
Murder One, "Chapter Nine"

Bing Sokolsky
High Incident, "The Godfather"

MINISERIES

Donald M. Morgan, ASC *
Ruby Ridge: An American Tragedy

Steven Shaw, ASC
Pandora's Clock

Peter Woeste, CSC
In Cold Blood

MOVIE OF THE WEEK OR PILOT
Robert Draper, ACS
What Love Sees

Alar Kivilo, CSC
Gotti

Michael Margulies, ASC
Hidden in Silence

Elemér Ragályi, HSC
Rasputin

William Wages, ASC *
Riders of the Purple Sage

Peter Wunstorf
Millennium (Pilot)

* denotes winner

New technologies have transformed the way images are created, while simultaneously heightening expectations for both their visual impact and cost-effectiveness. Thus, it goes without saying that tightening budgets and production schedules have made the realm of television production an arena of blood, sweat and tears for directors of photography vying to maintain their artistic visions.

The American Society of Cinematographers continued its ongoing celebration of televisual excellence at the 11th Annual ASC Awards for Outstanding Cinematography, held at the Century Plaza Hotel in Los Angeles on February 23. There, 1,300 peers and patrons feted 14 distinguished directors of photography nominated for work aired in 1996. In the following pages, *AC* offers an in-depth look at the nominees and their respective works.

EPISODE OF A REGULAR SERIES

Aaron Schneider
Murder One
"Chapter Nine"
ASC Award Winner

Aaron Schneider earned last year's ASC Award in this category for his work on *Murder One* with the episode "Chapter Four" (see *AC* May 1996). The cameraman's contributions to the Steven Bochco-produced series, which covered a single murder case from

the discovery of the crime to the courtroom verdict, also brought him an Emmy nomination for the pilot, "Chapter One." He then shot the initial 10 episodes of the series before moving into the feature realm with the upcoming Paramount release *Kiss the Girls*.

Schneider notes that the courtroom set is a prominent feature of *Murder One*. "We had three windows that side-lit the courtroom, and the lawyers always sat parallel to the second window," he says. "Outside the center

window — which ended up being a perfect sidelight source — we put up a 6' x 6' frame with a 10K behind it, creating a soft crosslight. Then we'd fire a lower-intensity light through the first window, which was forward from the actors, into a 12' x 12' frame inside the set 20 feet away. The bounce would wrap around them just ever so slightly. With both lights, we had a much more complex and natural-looking effect on the faces.

"When we went into close-ups on the people at the defense table, we'd leave those lights outside the courtroom and use smaller frames inside the courtroom to do the same thing on a micro level. Instead of bouncing into the 12' x 12', we'd take a 6' x 6' and put it four feet outside the shot. As we came closer to the actors, we were able to soften this wrap-light even more.

"Other people do this [double-key effect] with hard light.





They'll set up a back $\frac{3}{4}$ edge-light that's hard and crisp [in quality] and then go to the side with a softer source and blend that key in with the crisper backlight. By lighting from two directions, with two different qualities of light, you get nice shape, modeling and tonal range."

The other primary set in the series is the district attorney's office. "It was a corner office," says Schneider, "so 180 degrees of square room was all windows. [To create our daytime look], we built huge fisher lights outside our windows right above the window line and out of the camera's sight. They were basically 6' x 6' soft boxes made with 1000H paper and $\frac{1}{2}$ CTB. Each was as long as each respective wall, so if the wall was 20' long, we had a 6' x 6' x 20' soft-box aimed down at a 45-degree angle. When you clicked them on you had skylight."

"We would then introduce a hard light — a Xenon or a 10K — at an intensity that was two

or three stops above the soft light to simulate whatever amount of direct sun we wanted to have in the room. You can't just put a light through a window. Light is more complex than that.

"We designed the office to have a lot of reflective qualities," he continues. "The desk was made of polished wood, and the leather furniture was dark. With the combination of soft-box skylight

"You can't just put a light through a window. Light is more complex than that."

— Aaron Schneider

and direct sunlight, we'd get a reflectivity that suggested not only that it was daytime, but that there really was a sky out there. That soft light was maybe three stops below the hard light, but it lays into the surfaces and brings out a reflective quality that the hard light alone can't.

"Additionally, I think hard light looks less flattering on people's faces, so I would cut it across their chests, their arms, or the desktop in front of them in the foreground. That would then be my highlight, my sunlight. Then I would let the soft light play on their faces."

Schneider is currently shooting the pilot for producer/director Michael Robin's series *C16*.

James Bagdonas, ASC
Chicago Hope
"Time to Kill"

Although he never intended to become a cinematographer, James Bagdonas, ASC was lured into the profession by meddling friends. "I actually came out to Los Angeles in 1973 while I was attending college in Chicago," the cameraman recalls. "I had friends here who were working in the industry, and they introduced me to Roy Wagner [ASC]. On a fluke, he

Attending a special nominees dinner held at the ASC Clubhouse in Hollywood were (from far left) John Bartley, CSC, William Wages, ASC; Melvin Sokolsky, the father of nominee Bing Sokolsky; John Seale, ASC, ACS; James Bagdonas, ASC; Michael Margulies, ASC; Alar Kivilo, CSC; Brian Reynolds, International Award recipient Raoul Coutard, Aaron Schneider, Caleb Deschanel, ASC; Peter Wunstorf, Robert Draper, ACS; James Ellis, wife of Roger Deakins, ASC, BSC; Vilmos Zsigmond, ASC; Awards Committee Chairman Bud Stone; agent Paul Hook, representing Elmér Ragályi, HSC; ASC President and Lifetime Achievement Award recipient Owen Roizman, ASC; and Steven Shaw, ASC.

offered me a camera assistant job on a film. The work came naturally to me, as I had been a roadie for rock bands in Chicago. The job consisted of carrying cases, working long hours and getting no money, so it seemed like a natural progression! But the weather was warmer, and I thought it was great."

After moving to L.A., Bagdonas started working in the camera department at Warner Bros., where he assisted for such ASC greats as Conrad Hall, Haskell Wexler and John Alonzo, and began working his way up the ladder. While Bagdonas was working as an operator, cinematographers Chuck Minsky and Ray Villalobos became true mentors. "I didn't really think in terms of my own lighting style until I was operating for them," he reveals. "They would often challenge me, saying, 'Well, what would you do?' I watched what they did and realized that your style becomes a mixture of everything you've seen and put together, with your own personal taste thrown in. My own style didn't develop until around 1987, when I was moved up from operating and I started to realize what I liked as a cinematographer — highlights in the backgrounds, soft light from the side or top, particular colors of light, and certain camera positions."

Bagdonas was nominated for an ASC Award in 1989 for his first series, *Hunter*, on which he had previously served as operator before assuming cinematographic duties. After two years on that show, he photographed three seasons of *Lois and Clark: The Adventures of Superman* before exchanging shows with Kenneth Zunder, ASC, who had been shooting *Chicago Hope*. Bagdonas comments, "Ken's a great cameraman, and we ended up swapping some trade secrets about each other's old sets!"

"After I accepted *Chicago Hope*, I suddenly had some reservations about what I was going to do with it — the show looked great and had already received ASC nominations. There was certainly nothing wrong with it. But I decided to take a little more dramatic license and not worry about the fact that the hallways didn't have

windows. We played the hallways as if they were a room with windows outside. We kept the hallways darker, but placed a lot of window slashes across the actor's bodies as they walked through. In the operating rooms, which are normally pretty bright areas, we took the license to make them darker as well, lighting with pools of light and the operational lights in the background."

While Zunder had shot the show on Kodak's PrimeTime 640 stock, Bagdonas had some initial reservations about the telecine-optimized emulsion. He recalls, "I hadn't used PrimeTime before, but I realized that it has a really high range in latitude and can take a lot of highlights before blowing out. There was a little bit of trial and error in the first couple of weeks, but now I'm really happy with it."

John S. Bartley, CSC
The X-Files
"Grotesque"

John S. Bartley, CSC's contributions to the critically lauded series *The X-Files* (see AC June 1995) have been recognized twice before with ASC Award nominations — in 1995 for the episode "731" and in 1994 for "Duane Barry." He also earned the 1996 Emmy for the episode "Grotesque" (see AC October 1996) and was nominated in 1995 for "One Breath." Bartley's other television credits include the series *Booker* and *The Commish*, as well as the pilots for *Outlaw* and *Both Sides of the Street*.

Bartley left *The X-Files* last year after shooting the series for three seasons. He has since photographed various other projects, including episodes of the series *Early Edition*, the Showtime movie *Tricks*, and the pilot for *The Visitor*, produced by Dean Devlin and Roland Emmerich. The cameraman is currently preparing to shoot the pilot for the series *Fargo*, based on the Coen brothers' feature of the same name shot by Roger Deakins, ASC. Additionally, Bartley is considering the pending production of an *X-Files* theatrical feature, which would be released after the series' reportedly final fifth season.

The X-Files is shot primarily on locations in and around Vancouver, B.C. The visually ambitious series presents its cinematographer with the Herculean task of living up to the expectations of the show's worldwide fans, despite filming each episode on a scant eight-day schedule. Regarding the location work, Bartley relates, "You really have to keep an eye on the weather forecast. The weather in Vancouver travels terribly fast. It can be pouring rain in the morning and then sunny by lunch. You can really get caught, and I have!"

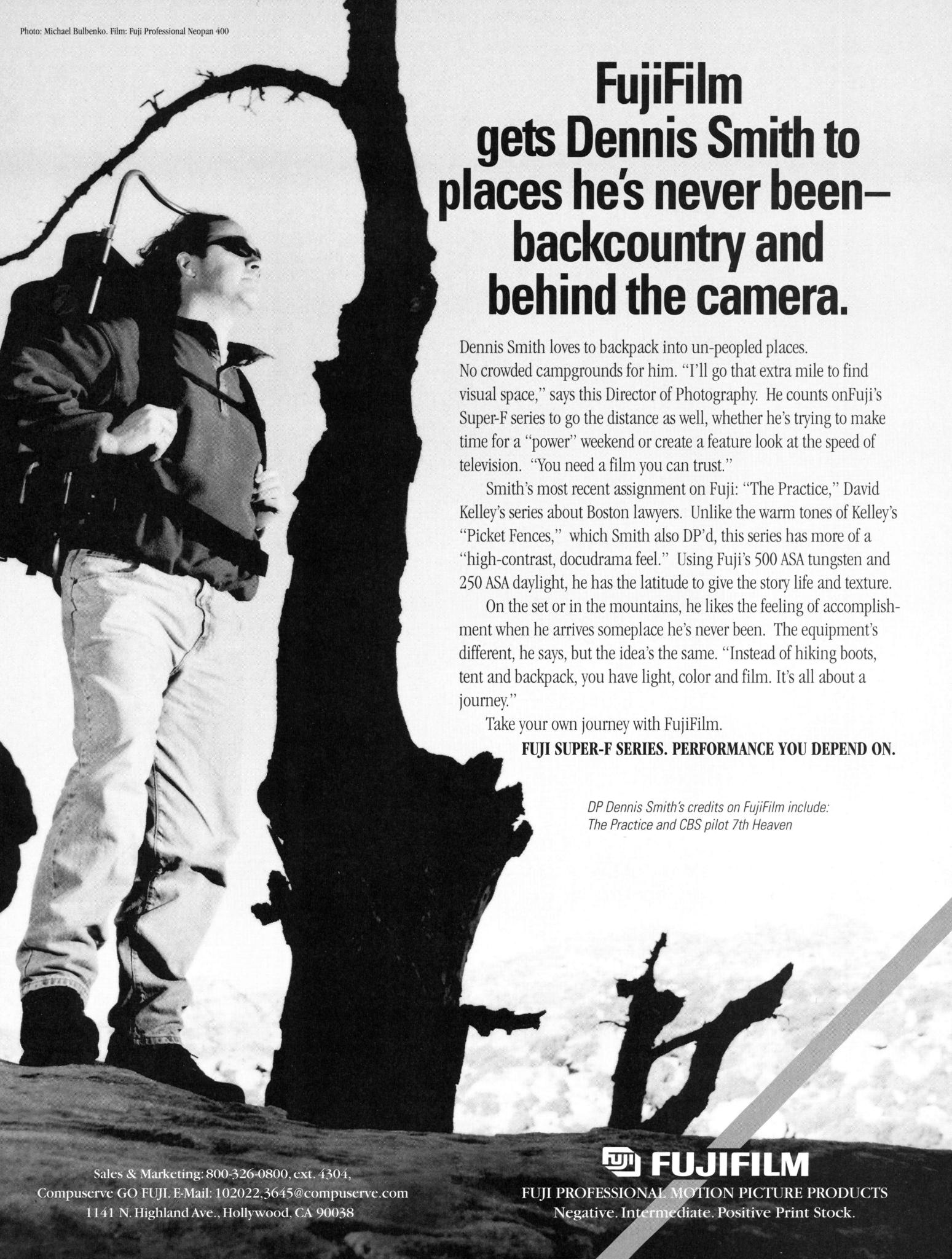
The cameraman photographed the first *X-Files* season exclusively on 5293, rating it at 400 ASA for nighttime scenes. He then used 5298 for low-light situations in the second and third seasons. "When we were on location scouts," he adds, "I'd ask [art director] Graeme Murray what his ideas were for practical light fixtures that could be added to the scene. From there, we could sort out what the lighting was going to look like — whether we were going to have China-hats, fluorescents or whatever. That alone established a lot of the look."

The X-Files is currently in its fourth season, with former second-unit cameraman Joel Ransom now serving as the series' director of photography.

Brian J. Reynolds
NYPD Blue
"Closing Time"

Reynolds continued his string of ASC Award nominations this year, earning his fourth in a row for his efforts on the critically praised Steven Bochco series *NYPD Blue*. He was previously nominated for the episodes "Heavin' Can Wait" (1995), "You Bet your Life" (1994), and "Oscar Meyer Wiener" (1993). Reynolds also garnered an 1994 Emmy nomination for "You Bet Your Life" and earned a 1991 ASC Award nomination for the pilot of Bochco's *Civil Wars*.

Reynolds' visual style on *NYPD Blue* utilizes a voyeuristic, subjective camera to place the audience into the environment of a frenetic New York precinct. The



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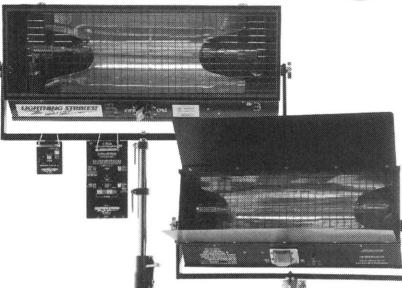
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cinematographer initially photographed the series on Agfa's ETR 250 and 400 ASA emulsions, but switched to Eastman's 5298 when Agfa stopped producing motion picture negative film. To help suggest the show's New York City setting, he frequently employs ND grad filters to lend a sense of weight to the frame. "I use NDs on both the top and bottom of the frame," he explains. "This lends a more realistic feeling of the streets of New York, as if the streets are being shadowed by the tall buildings." Additionally, the cinematographer deploys panels of polished sheet metal to bounce random reflections of light into the sets, mimicking the effect of sunlight glinting off the skyscrapers and glass-faced buildings.

Reynolds' other credits include the pilot for the series *The Danger Team*, six episodes of the series *Sisters*, and the features *Guarding Tess*, *Jezebel's Kiss* and *Gang Related*. He is currently continuing his relationship with producer Bochco, shooting the pilot for the new series *Brooklyn South*.

Bing Sokolsky

High Incident
"The Godfather"

The son of a famous fashion photographer, Bing Sokolsky was surrounded by the world of cameras and commercials as a youth. By the age of 12, he wanted to become a cinematographer and had started working as a loader on his father's commercial shoots. Sokolsky's fellow assistants — and would-be instructors — included such luminaries as John Toll, ASC and Chuck Minsky. By 15, Sokolsky was working for ASC cinematographers Conrad Hall, Allen Daviau, Stephen Goldblatt and the late Jordan Cronenweth.

Sokolsky remembers, "I worked for Jordan for about 3 1/2 years, and did about five movies [including *Peggy Sue Got Married*, *Stop Making Sense* and *Gardens of Stone*] with him. My father gave me my base in photography, but Jordan was my mentor. He was the one who really inspired and encouraged me to experiment and not be afraid. As a cinematogra-

pher, I was able to distill all of the things I learned from each of them and then add my own ideas."

After Sokolsky had built a solid body of work in commercials, music videos and telefilms (his first television movie was the critically praised *Doing Time on Maple Drive*), he gained recognition by creating the look and style of *NYPD Blue* — which earned him ASC Award nominations in 1993 for both the series pilot and the episode "True Confessions."

Sokolsky points out that there are distinct differences between *High Incident* and his earlier show. He offers, "*High Incident* is a different show because it has a more suburban setting — as well as the fact that it involves a different type of police force. So we wanted the series to have a different point of view. *NYPD Blue* has a voyeur's perspective. It was designed that way, whereas *High Incident* was designed as a policeman's point of view. If you look at some of the 'reality' shows, such as *Cops*, the perspective of the camera is primarily from the back seat of the car, as if you're one of the policemen. You're part of that culture."

"Toward that end, we did a lot of handheld and Steadicam work on *High Incident*. I also used a lot of wider focal lengths than I did on *NYPD Blue*. On that show, our master shots were done with a 50mm lens, which confined the viewer and controlled what he or she could or could not see; *High Incident* offered a little more freedom.

"There were several challenges on the show," he continues. "We had a nine-day schedule, and we spent two of those days on stage. So we were usually a traveling circus on the road, doing between 80 to 90 percent of the show — 30 to 67 setups a day — on practical locations, either night or day exteriors. On our best night, with three cameras, we did 67 setups.

"On a day exterior, we would average around 30 setups before lunch. That was also a challenge, because we often had car interiors that were built so that you could actually drive up to a scene and get out of the car with the actors in one shot. To balance be-

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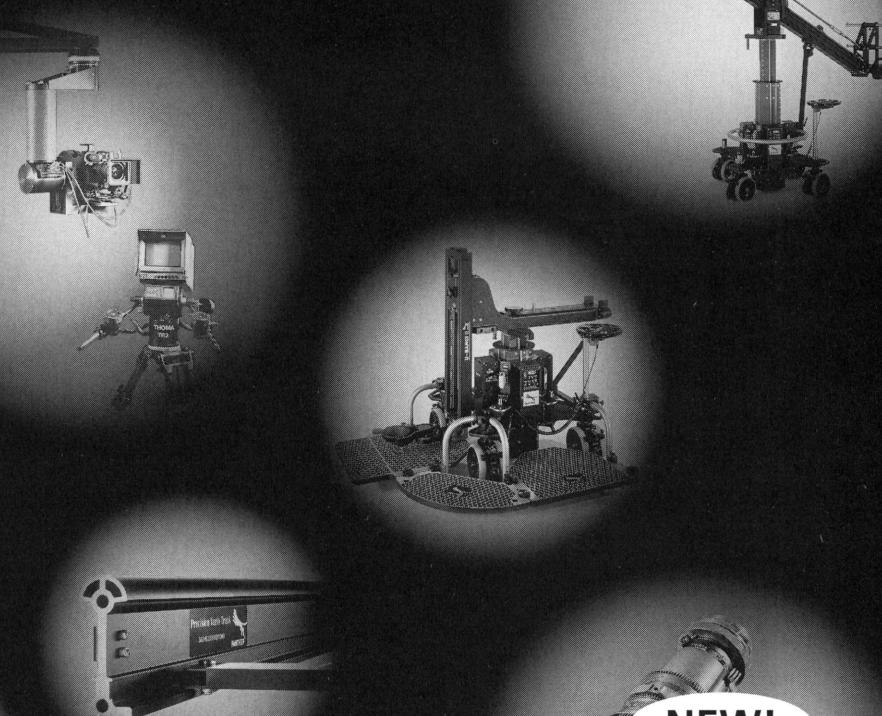
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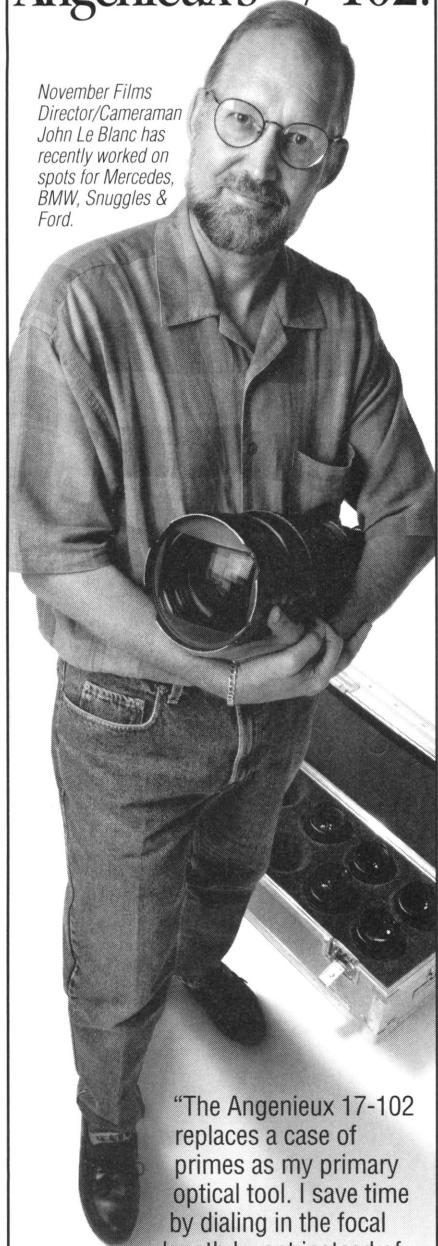
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tween what was inside the car and what was outside was a pretty amazing feat, because a lot of times we could not light. Again, that's where my experimentation came into play.

"Thanks to Kodak, there are some pretty amazing stocks available, and if you learn how to use them they can be incredible tools. I was rating 5287 — indexed at 200 ASA on the can — at close to 800 and 1200 ASA. I was balancing between the interior of the car, which would be around a T4, and the exteriors, which were generally around a T16 or 22. By shooting tests and seeing where the film could go, I found a place to expose the film where it balanced both the interior and exterior perfectly."

Sokolsky has also done second-unit work on the features *Star Trek: First Contact*, *Strange Days* and *A Low Down Dirty Shame* for Matthew Leonetti, ASC. Currently, Sokolsky is in Dublin, Ireland shooting the Disney telefilm *Oliver Twist* for director Tony Bill.

MOVIE OF THE WEEK OR PILOT

William Wages, ASC
Riders of the Purple Sage
ASC Award Winner

When he was 12 years old, William Wages discovered *American Cinematographer* magazine on the stands at a local camera store. After thumbing through its pages, he knew he wanted to become a director of photography. Describing himself as "the kid who grew up to be the fireman," Wages worked his way through school at Georgia State University as a still photographer for the *Atlanta Journal*. Upon graduation, he began his career as a cinematographer.

He quickly accumulated credits on such television projects as *The Traveling Man*, *The Crash of Flight 232*, *With Savage Intent*, *For Their Own Good*, *Secrets*, *Shadows of Evil*, *Mortal Fear* and *Every Woman's Dream*. He has also shot the features *Love Potion No. 9*, *In the Army Now*, *Iron Will* and the upcoming *American Perfekt*.

Wages' nominated work, the Turner/Rosemont-produced MOW *Riders of the Purple Sage*,

earned him his fifth ASC Award nomination, following prior nods which came for *I'll Fly Away* (1991), *Caroline and Voices Within: The Story of Truddi Chase, Part II* (both 1990), and *Gore Vidal's Lincoln* (1988).

Riders of the Purple Sage is Wages' fifth collaboration with director Charles Haid; they had previously teamed on the feature *Iron Will* and the telefilms *Cooperstown*, *In the Line of Duty* and *Nightman*. Also along for the ride were such frequent collaborators as production designer Michael Baugh, gaffer Tully McCulloch, key grip Rich-

"Westerns are about logistics. If you plan well, you'll be at the right place at the right time."

— William Wages, ASC

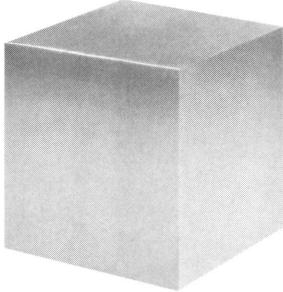
ard Fezzy and first AC Heather Page. Wages also praised longtime friend and second-unit director of photography Jerry Calloway for adding immeasurable value to the production.

In their initial talks, Haid and Wages decided to lend the Western an almost black-and-white noir ambience, even though the film was shot on Fuji 250 and 500 ASA color stocks. "We wanted the picture to feel hot and rugged," Wages explains. "We didn't do anything to soften the look. They only filters I used were polarizers and grads — nothing else. Amy Madigan [the show's lead actress, who served as co-executive producer with co-star/husband Ed Harris] wanted to look like a real rancher, like someone who lived in those conditions and did that work. I wasn't forced to use any kind of diffusion on her, and we shot her the way she was. Amy's such a wonderful, brilliant actress that it was more important for her to look real and be believable than anything else. And she did look beautiful and real. I really appreciated it, because not many actresses want to do that."

Shot within an hour's drive of Moab, Utah, the production built several of the film's buildings, which were designed specifically for their filming needs.

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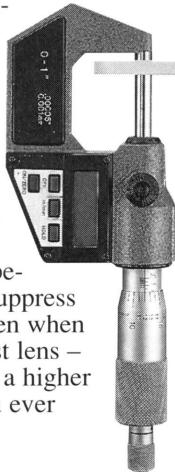
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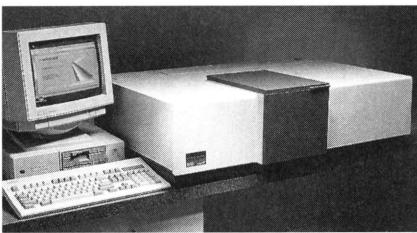
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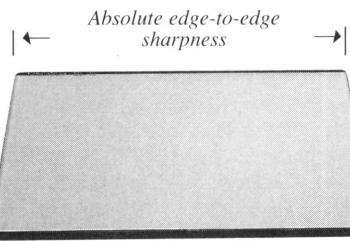


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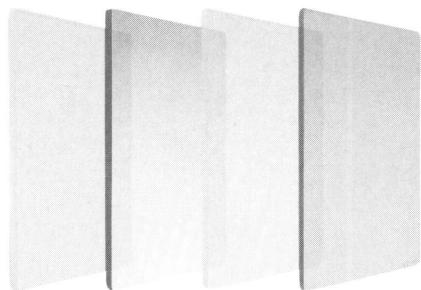
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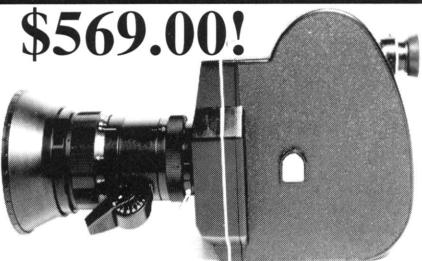


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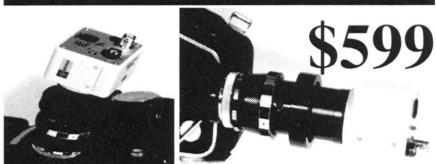


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Wages explains, "We built the church, the farm house, the barn and some other buildings. With the ranch itself, more consideration was given to the trees; knowing which scenes we would do there, we tried to position the buildings so that we could get wonderful afternoon light on the porch.

"The church was the most important building," he maintains. "We positioned it so that we would get shafts of light through the windows, and boy did that work! The shootout sequence at the end of the story was engineered around a four-hour period in the afternoon when we got incredible shafts of light through the windows — that is, as long as it wasn't cloudy outside. On the days that we were [at the church location], we would shoot bits and pieces of other scenes and then go in and shoot parts of the shootout sequence while we had those shafts of light. The shutters [on the windows] were designed with cracks so we could have that effect. The more guns that were fired in the scene, the smokier it got, and the more the shafts of light we had. But I was a nervous wreck the whole time, because if the sun went behind clouds, I really couldn't duplicate that effect."

A substantial portion of the script utilized exterior locales, so Wages and the first assistant director Craig West had to carefully map out the production strategy. "Westerns are about logistics," he says. "If you plan well, you'll be at the right place at the right time, and that's what Charlie [Haid], Craig and I did. I spent my entire time during preproduction going to the locations so Charlie and I could figure out how we were going to shoot the scenes and decide what time of day we should film them at. Craig then created a schedule that reflected all of that. Craig consistently got us to the right place at the right time of day.

"It was a very rough shoot, as any Western is. To film a Western, you have to go out into the middle of nowhere so you can see 360 degrees of horizon. That means you can't hide the film company anyplace. You have to plot every scene and know exactly how

you're going to do it to make sure that you don't end up parking the company right in the middle of it all. Sometimes there are rocks to hide things behind, but many times there aren't. Also, a lot of the picture was shot on Bureau of Land Management property, which meant we couldn't drive on it and had to hand-carry a lot of equipment a long way."

Recalling one such instance, Wages relates, "We wanted to do a sunset scene on top of one of the buttes. There was only one way up, which was through a big crack that was about six feet wide and had filled up with dirt and rocks over the years to form almost natural steps to climb up. Without equipment, it took about 10 minutes to climb to the top, and it was a real problem to get up there with the equipment, shoot the scene and then get back down before it got too dark and dangerous. In a moment of inspiration, I came up with the idea of lining up the entire crew from the bottom of this crack all the way to the top — forming a daisy-chain, like a bucket brigade. This way, we handed our equipment up, got our shot, and then handed the equipment all the way down.

"What was also interesting about this was that Ed Harris, Amy Madigan and Charlie Haid were right in the middle of this line of about 75 people, handing equipment up. Once we got the equipment in place, we'd climb up and shoot with Ed and Amy — and then they'd get back in the middle of the line and help to hand the equipment down. That was the kind of spirit this project had all the way through. It was very much a team effort on everybody's part, and that's what made *Riders* so wonderful."

Wages is currently in Benson, Arizona, working with Haid and most of his crew from *Riders* on a new telefilm titled *Buffalo Soldiers*.

Robert Draper, ACS
What Love Sees

Born in Sydney, Australia, Robert Draper, ACS was coerced away from a budding career as a medical technologist in a pathol-

ogy lab in Wagga-Wagga after he decided to buy a Super 8 camera to film his wife riding horses. A clever (and prophetic) salesman in the local camera shop convinced Draper that he could not only shoot his wife's equestrian activities with the 16mm Bolex the shop had for sale, but also earn his money back by shooting news footage for the local TV station.

Draper's nominated work, *What Love Sees*, marked his 12th collaboration with director Michael Switzer; the duo has since shot *Unlikely Angel*. "We have a great relationship that really works well," notes Draper. "He knows me and trusts me, and I know him. There are no egos. If he comes to me and says, 'This isn't working,' or 'This looks awful,' I don't feel bad or get upset. I'll just reply, 'Yeah, you're right,' or 'I think you're wrong and it looks great.' When you have a good relationship with your director, especially on a TV movie, it gives you a lot of freedom. You don't have to spend time explaining yourself, because he knows what you're doing."

What Love Sees, set in the Forties and Fifties, follows the experiences of a young blind girl (Annabeth Gish) who decides to leave her sheltered life with a wealthy East Coast family and move West to pursue her dream of finding both her own self-identity and love. Draper chose to differentiate the East and West Coast looks with the subtle use of diffusion, while maintaining a "period" effect similar to images he had seen in antique issues of *Life* magazine. To realize this "Rockwellian" palette, Draper used "heavy filtration, including light double-fogs, so that the highlights were always blowing out a little bit. I used Tiffen Pro Mists and flashed the negative about 15 percent using the Arriflex Varicon. I also used a lot of overexposure in the highlights. They were often overexposed five, six, or even seven stops, and even then I kept the shadows up as well. Light grades of sepia filters gave the Eastern part of the story a very specific look.

"When we went out West," he continues, "I stayed with the same grade of sepia but re-

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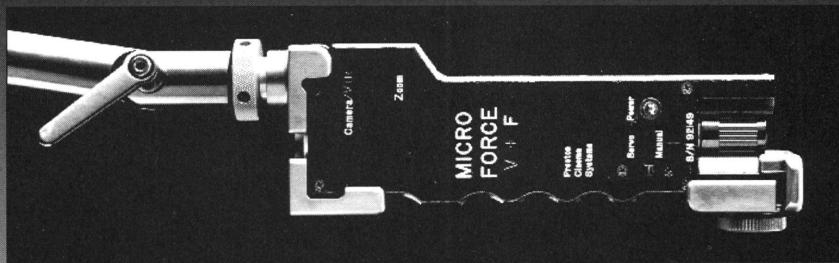
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moved all of the diffusion, so the footage would have a much harder, crisper look. Instead of going for a lot of overexposure, I kept the exposure more normal in the highlights and went way down into the shadows with fairly dark, saturated blacks. The look progresses and gets harder as the heroine of the story struggles to find her way in the Western environment. I used the work of [painter Edward] Hopper as a model, with a much greater use of hard light."

Draper was nominated for ASC Awards in 1993 for *A Matter of Justice — Part I* and in 1991 for *False Arrest*. He has also earned five ACE Award nominations for his work on *Tales From the Crypt* — winning for the episode "Lower Berth" — as well as several ACS Golden Tripod nominations and awards for his work Down Under.

The cameraman's feature credits include *Halloween 5*, *Tales from the Darkside*, *Dr. Giggles*, *Simple Justice*, and this year's acclaimed independent film *The Spitfire Grill* (see AC Sept. 1996).

Alar Kivilo, CSC Gotti

After receiving his first still camera when he was 16 years old, Alar Kivilo, CSC graduated from high school and began studying film in Toronto. A 1995 ASC Award nominee for the miniseries *The Invaders* (see AC May 1996), he has photographed such projects as *Mary Silliman's War*, *Avalanche*, *Choices of the Heart* (which earned him an ACE Award nomination), *Young at Heart*, *Friends at Last*, and last year's HBO film *King of the Volcano*.

Kivilo also co-owns a commercial production company for which he serves as a director/cinematographer, shooting for such clients as Apple Computers, Molson, Levi Strauss and Pepsi.

"The main aspect of cinematography that I find appealing is that it's a lifetime of learning," the cameraman notes. "There's always something to be learned — the way light reacts, how color reacts to things — it's a constant process. But even more importantly,

what's fascinating is just how and why certain images affect us emotionally.

"Ultimately, what I want to do are films that affect the human condition: people stories. The important thing to remember is that in whatever project you do, you should find the things that matter to you in the story."

Michael Margulies, ASC *Hidden in Silence*

Recognizing that cinematographers' contributions to the art of motion pictures were often underappreciated and misunderstood, Michael Margulies, ASC spearheaded the creation of the ASC Awards in 1985. The cameraman's foresight and determination was honored last year with the ASC's Pioneers Award, so it's fitting that he received his first nomination this year for his outstanding work on the Lifetime production *Hidden in Silence*.

Nominated for an Emmy in 1991 for *The Hunted*, Margulies' expansive list of TV credits in-

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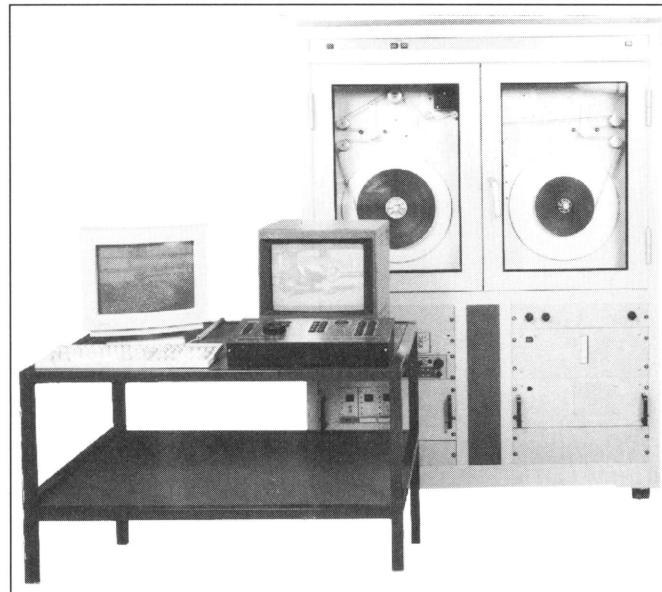
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cludes the telefilms *Suicide's Wife*, *Fallen Angel*, *Too Good to be True*, *Rosanne and Tom: A Hollywood Marriage*, and *The Morning After*; the miniseries *The Deliberate Stranger*, *Robert Kennedy and His Times*, *Evening in Byzantium*, *The Blue Knight* and *Dark Victory*; and the pilots for *Moonlighting*, *The Waltons*, and *Barretta*.

Margulies' feature credits include *Minnie and Moskowitz*, *My Bodyguard*, *Six Weeks* and *Police Academy*.

Hidden in Silence was shot in the town of Hradec Kralove, located an hour east of Prague in the Czech Republic. The production sought to utilize the city's 16th-century architecture to add authentic ambience to the period piece, and referenced photographs from the 1940s to establish the film's look. Margulies explains, "The images we've all seen from that era are high-contrast black-and-white, and as a rule, are usually illuminated with a single light source. We wanted the style of *Hidden in Silence* to suggest that, but using color stock."

"However, much of the film was shot in an attic which was literally four feet high by six feet wide," he notes. "It only offered a few places to secure small sources — like inkies — to light the 13 actors we had on that set at any one time. It was quite a challenge to keep the lighting in that one-source mode, but the crew was able to help me tremendously."

Working in Czechoslovakia did present some unexpected challenges for Margulies. He explains, "The crews there use the 'English' method, where the electricians do what grips in the States do [in addition to their normal duties], and the grips basically work with the dolly track and the dolly. The crew was just excellent, though. They supported me 110 percent and they knew their jobs."

Elmer Ragalyi, HSC
Rasputin

A graduate of the Academy of Film and Drama in Budapest, the same Hungarian film school that trained such ASC

greats as Vilmos Zsigmond, Laszlo Kovacs and Lajos Koltai, director of photography Elmer Ragalyi earned the 1996 Emmy Award for his work on *Rasputin* (see AC Oct. 1996). Ragalyi's other television credits include *Judgment*, *Max and Helen*, *Teamster Boss: The Jackie Presser Story*, and *Passport to Murder*.

His list of feature credits — which boasts more than 100 titles — includes *Hanna's War*, *Mack the Knife*, *The Phantom of the Opera*, *A Kid in King Arthur's Court* and *Never Talk to Strangers*.

Ragalyi's latest project is the recently aired Turner Network Television production of *The Hunchback of Notre Dame*, a faithful adaptation of Victor Hugo's classic starring Richard Harris, Mandy Patinkin and Salma Hayek.

Peter Wunstorf
Millennium (pilot)

A native of Alberta, Canada, Peter Wunstorf began his career in cinematography as a newsreel cameraman for the CBC. He first gained recognition for his

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work on the low-budget black-and-white feature *The Grocer's Wife*, which was selected to open Critics Week at the Cannes Film Festival. His subsequent film, *Double Happiness*, earned him a Genie Award nomination. His other credits include *The Michelle Apartments*, *Road to Saddle River* and *Invasion of Privacy*.

Wunstorf's work on *Millennium* (see AC Oct. 1996) presented the cinematographer with an eclectic range of locations and photographic obstacles. "Although I was lighting these huge forest areas and doing complicated chase sequences on a bridge," says Wunstorf, "it can almost be more difficult and time-consuming to light a small bedroom, or a set like the basement in the house owned by Frank Black, the show's main character. We were generally using two lights while shooting in the forest. They were very big lights, mind you, but basically we had only a Bee Bee coming down and then a 4K HMI bouncing off of a 12' X 12' for fill. We then added some smoke and that was it. But

in Frank's basement, which we lit with six or seven Dedolights and several inkies, the lighting became much more finicky."

Wunstorf did have to battle some unexpected elements while shooting a highly energized moonlit chase through the forest area of Stanley Park in Vancouver. "Some of the footage was coming up a bit thin, because the smoke we were using kept dissipating during the course of the shot. You have to be really careful when using smoke at night, because it actually gives you a lot of exposure. If the smoke starts to thin out, you can begin to lose some of that exposure, and your negative may end up having less density."

Commonly used throughout the show are "vision" sequences in which somewhat-psychic serial-killer profiler Frank Black "sees" through the eyes of the sociopathic criminals he is pursuing. Wunstorf explains, "The killer doesn't see the world the way the rest of us do, so I had to figure out how to make his point of view different. We decided to shoot

those sequences with 16mm reversal film. During filming, we would start and stop the camera — creating a lot of flash frames and providing edit points. It's a technique you see in a lot of commercials. We felt this would be an effective way to give a distorted point of view without going over the top."

Wunstorf is currently shooting *Drive She Said* for director Mina Shum. *Millennium* is finishing up its first season with Rob McLachlan serving as the director of photography.

MINISERIES

Donald M. Morgan, ASC
Ruby Ridge: An American Tragedy
ASC Award Winner

As Don Morgan accepted top honors for his work on *Ruby Ridge: An American Tragedy* (which had previously earned the cameraman an Emmy nomination), he became the first four-time ASC Award winner. Morgan had won prior prizes for 1993's *Geronimo*

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(which also garnered the cinematographer an Emmy and a Cable ACE Award nomination), 1991's *Dillinger*, and 1990's *Murder in Mississippi* (which also earned him an Emmy).

Morgan's other honors include Emmy nominations for *Doublecrossed* (1992, also a Cable ACE nominee) and *Elvis* (1979). The cinematographer's feature credits include *Used Cars*, *A Piece of the Action*, *I Wanna Hold Your Hand*, *Christine*, *Starman* and *Born to be Wild*.

The son of an animation cameraman, Morgan began his career as a lab technician before following his father's footsteps and aiming for a career working with cels and multiplane cameras. He discovered his true calling, however, while serving as an aerial photography assistant for Nelson Tyler at Tyler Camera Systems. "I wasn't too crazy about being an animation cameraman," he confesses. "I also wasn't too crazy about film labs, but I really loved working in films. It was after doing some commercials that I really got

interested in lighting. That's when the filmmaking bug really bit me."

This year's ASC nomination came as a pleasant shock to Morgan. "I was surprised that *Ruby Ridge* turned out as well as it did," he explains. "We shot the film in Chico [north of San Francisco] because of weather considerations;

"I had to light a lot faster on this show than I ever had to before, just to make the days."

— Donald M. Morgan, ASC

the real Ruby Ridge in Idaho was snowed in. We were assured that there would be little snow in Chico and that the weather was pretty mild, but we had terrible rains and snow. So the poor first AD, Craig Houston, had to sometimes make three separate call sheets a day to cover whatever might happen.

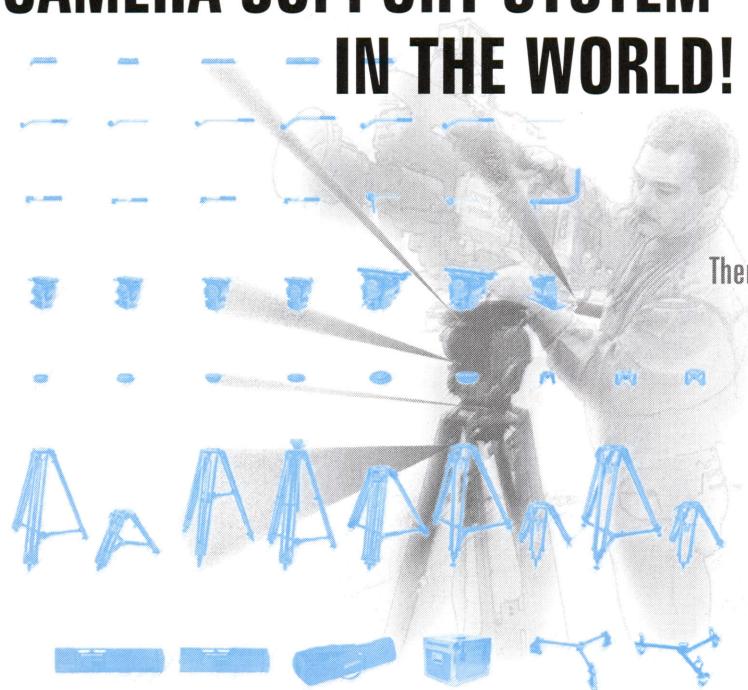
"We had the cabin built on top of this mountain," he continues, "and we had the interior of the cabin, as well as a couple of other small sets, built inside a big, vacant

store inside a mall. Those interiors served as our cover sets. Depending on access to the cabin, we'd often have to hurry back and light those interiors, even if they weren't prepped. I had to light a lot faster on this show than I ever had to before, just to make the days."

"In that regard it was a very demanding picture, but the producer, Bob Phillips, says we still made it on schedule and on budget — even though that [cover-set scenario] was pretty much the daily routine whenever we were dealing with exteriors."

Based on a true story, *Ruby Ridge*'s main action takes place inside the cabin, as a family staves off government agents seeking to arrest the father on weapons charges. Detailing his lighting strategy for the space, Morgan relates, "The actual shack had a little generator to provide some electric light once in a while, but they mainly used kerosene lamps, candles and things like that; I tried to be honest to those sources. I used some fire effects from the little wood stove and utilized the win-

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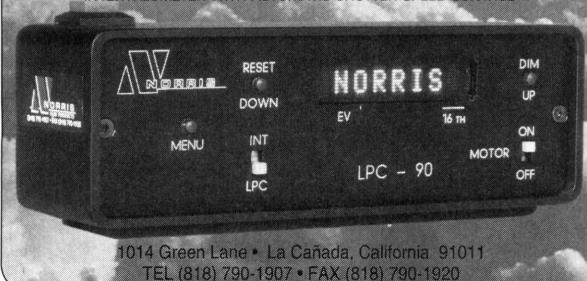
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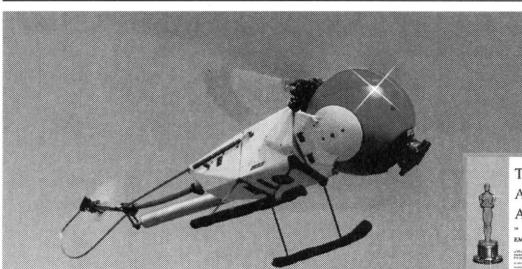
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dows as sources, even at night. There was a lot of very low-key, sketchy lighting in the shack because there weren't a lot of ways that light could get in there.

"The interesting part in the lighting occurred after the family hung blankets over the windows so that the federal agents couldn't see inside. In the actual case, the FBI then shined strong freeway maintenance lights at the shack; we used 12K HMIs. We burned the house up with light. That gave us a chance to have some interesting effects. With the blankets over the windows, we didn't have a straight shot inside, so we had to direct the light at angles, creating hot pools in the darkness.

"I'm very proud that we got the film done, and this award recognizing that effort means a lot to me," he adds. "I think the ASC Award means more to me than any other thing I've won. To stand there in front of all of those people I admire, and to be up against the best in the business, is far more than I ever thought would happen in my career."

Steven Shaw, ASC
Pandora's Clock

"I started out in front of the camera as Burt Reynolds' photo and occasional stunt double in the early Seventies," reminisces Steven Shaw, ASC, who received his first ASC Award nomination for the four-hour miniseries *Pandora's Clock*. "In 1975, Burt and I did a film in Mexico called *Lucky Lady*, directed by Stanley Donen and photographed by Geoffrey Unsworth [BSC]. At that time, Geoffrey had two Oscars, one for *2001: A Space Odyssey* and the other for *Cabaret*. Burt had asked me to go to dailies for him every day, so for six months I had private one-on-one sessions with Geoffrey Unsworth. That was like having your own personal teacher, mentor, friend and tutor available all day, every day and then exclusively for two hours every night!"

After his experience with Unsworth, Shaw steered his career toward cinematography. "Geoffrey got me totally captivated and enchanted with the magic of

lighting and camerawork. After that, I stopped tinkering around in front of the camera and concentrated on being behind the camera. Then I met Allen Daviau [ASC]. I became Allen's first assistant, and we did lots of commercials and a movie of the week. I later pulled focus for him on *E.T.*"

Daviau persuaded Shaw to follow his ambitions and move up the ladder. After landing his first feature, Shaw remembers the terror he felt at having to illuminate his first major interior set. "I called Allen and asked, 'What do I do?' Allen said, 'Well, just remember, you have to put the first light somewhere.' And then he laughed! I said, 'Allen, please! Give me a little more than that!' Then he said to me, 'You know a lot more than you think you do. You've absorbed a lot.'

"I had worked for Vilmos Zsigmond [ASC] and Haskell Wexler [ASC], and I had been around Laszlo Kovacs [ASC] when I was with Burt. I also started to remember things that Geoffrey Unsworth had told me. I eventually made it though that film, and learned a lot in the process. Luckily, I had a great gaffer, Larry Wallace, who is now Allen's gaffer. After that first show, Larry worked with me on several low-budget features and movies of the week until Allen called me up one day in 1988 and told me he had lost his gaffer and needed someone for a big commercial. I said, 'Why don't you try Larry?' I haven't seen Larry since!"

Shaw's other credits include the telefilms *Dangerous Passion*, *Forgotten Prisoners: The Amnestey File* (which earned him an ACE Award nomination), *The Fifth Corner*, *Cry in the Wild*, *A Deadly Silence*, *A Father's Revenge*, the Sally Field miniseries *A Woman of Independent Means*, and the series *I'll Fly Away*, *Legend* and *Savannah*. The cameraman recently completed the pilot for *The Door*. His feature film credits include *Johnny & Clyde*, *Grandpa's Funeral*, *Driftwood* and *Hear No Evil*.

The miniseries *Pandora's Clock* presented Shaw with number of hurdles. Since more than a third of the narrative took place on a 747 airliner, the production secured the

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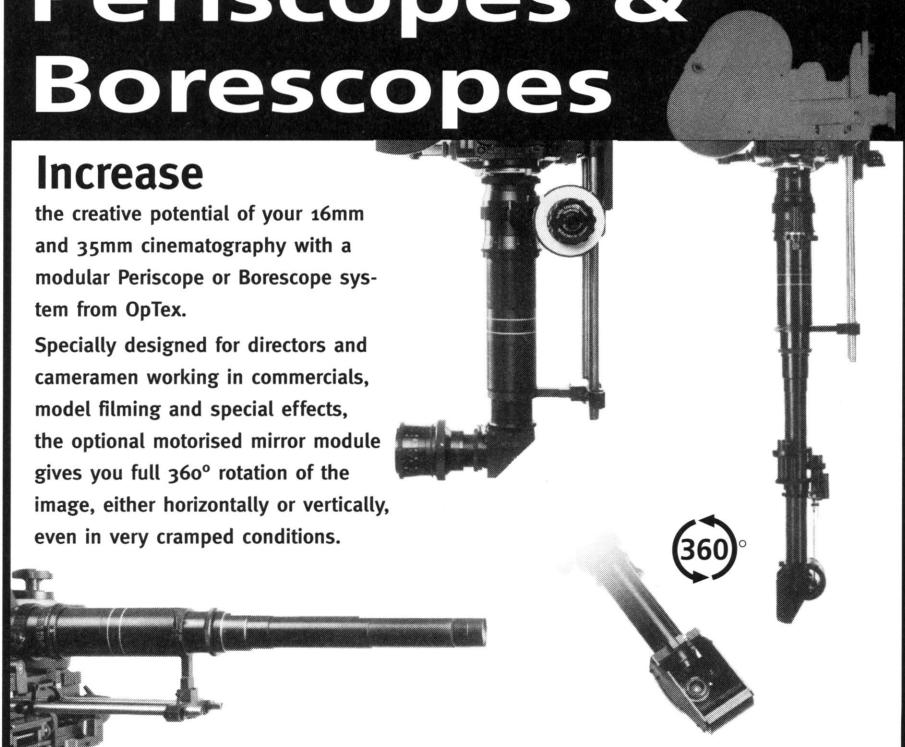
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Boeing Corporation's full-size sales mockup for their shooting needs. Unfortunately, Boeing didn't have film production in mind when they constructed their showpiece. Relates Shaw, "They had positioned this aircraft in their building with the windows just eight feet from the walls! I had to light through the windows on both sides of the aircraft, for all times of the day and night, with the lights five or six feet from the window!"

"We had to hang 115 lights on hydraulic lifts outside the windows so that when the 'sun' moved, all of the light and shadows inside the airplane would move in sync. Inside, we adapted some of Boeing's panels and put our own lights in, but I lit most of the interior of the airplane with Dedolights. I took a few liberties in creating shadows on the actor's faces that were more dramatically appropriate, even though in reality they probably wouldn't have been there."

The miniseries was completely photographed in Seattle, which stood in for Washington

D.C., London, Russia and Iceland, to name just a few international locales. "For the scene when the airplane lands at an Air Force base in Iceland at night, I decided to use some movie lights that had been on loan to the military," Shaw notes. "I mounted nine-lights and Mole Dinos 30 feet in the air on lifts atop the military trucks. It looked as if there was a major military operation happening. Additionally, since we were in 'Iceland,' I wanted the lights to be slightly cool, so I added blue gels to bring them to between 4400° and 4800° Kelvin. I used the nine-lights because I wanted to have a lot of small lights in banks, rather than one source — which to me would have made it look too much like a movie."

Peter Woeste, CSC

In Cold Blood

Cinematographer Peter Woeste, CSC [who remained unavailable for an AC interview at presstime] started his career as a documentary/news cameraman in

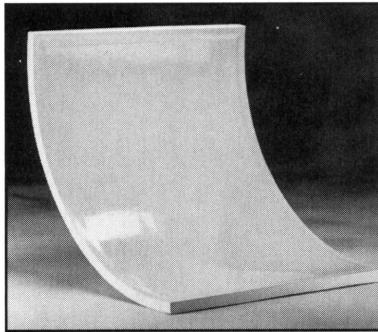
the early Seventies before entering the motion picture industry as an assistant cameraman. After progressing to operator in 1986, Woeste worked on such productions as *Immediate Family*, *Cool Runnings*, *Cousins*, *It* and *Leaving Normal* before graduating to full-fledged director of photography some five years later.

Woeste's credits as cinematographer include the television series *The Outer Limits*, *Profit*, *Channel 92* and *Sliders*, and the movies-of-the-week *For Those Who Hunt the Wounded*, *The Odd Couple*, *The Ruby Silver*, *Mortal Sins*, *Snowbound: The Jim and Jennifer Stolpa Story* and *Paris or Somewhere*. ♦

Next Month in AC

Our June 1997 issue will highlight this year's ASC and Academy Award-nominated cinematographers, as well as the innovators honored at the Sci-Tech Awards.

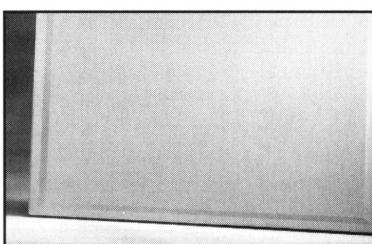
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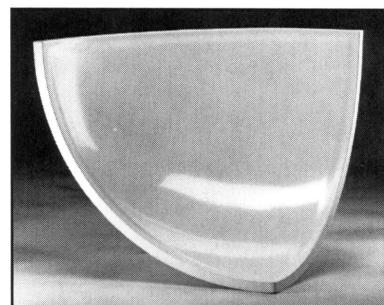
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"Color timers see more films than any cinematographer could see in an entire career — a lot more," reveals film technology expert Rob Hummel, president of technology for DreamWorks SKG and former technical liaison for Technicolor Labs. "Unfortunately, all of the clairvoyant timers have left the film business, so you have to call the lab to let them know when your film is starting, and let them know how you want it to look. During my seven-year tenure at Technicolor, for example, I would screen approximately 15 million feet of original camera negative in any given year."

Color timing can be an intimidating if not downright confusing process for many cinematographers. The ability to manipulate the look of images by varying film's three primary colors — red, green and blue — can even prompt one to rethink the original intent of the photography. This makes the communication between color timers and the filmmakers in charge of the images — usually the director and cinematographer — especially critical.

"The biggest trick is to figure out exactly what the filmmakers are talking about," says Dan Muscarella, head color timer at CFI Labs in Hollywood, whose credits include *Terminator 2, True Lies, Lost Highway, Sling Blade* and the upcoming James Cameron epic *Titanic*. "Everybody sees color a little bit differently, especially cinematographers. A director of photography will often talk about how he wants the image to be darker, lighter, warmer, or colder, but there are many different degrees of those factors. It could be a red warm or an orange warm, a blue cold or a cyan cold. They may want more color saturation, or perhaps a darker image with no color. There are approximately 125,000 combinations of red, green and blue with which to work, but if the cinematographer's negative is right on, only a few of those combinations will be desirable. The key to color timing is knowing your customer and what they want — getting inside the cinematographer's head and seeing exactly what he sees."

Color Conundrum

Veterans of the battle for filmic color control share their insights into the art of color timing.

by Christopher Probst

The process of timing a film begins the moment an image is exposed onto a negative. The decisions made at this critical step will forever determine the range of manipulation the image can endure during the color grading process. It is at this point that effective communications with the lab can have a major impact on the way a film is photographed. As some professionals in the field attest, the dailies timer is not only there to color-grade the dailies, but to keep an eye on the cinematographer's exposures and provide feedback on the quality of the negative.

Because they must work with what is captured on the emulsion, color timers have a good understanding of the properties in a negative that will yield the best results for the cinematographer's desired look. "A solidly exposed negative with a good, normal exposure is obviously the ideal," explains Hummel. "If you overexpose the negative, you'll have greater latitude. The lab can always print the image down and make it darker without compromising the image quality. The only thing that will happen is that you'll have a subtle increase in the saturation of the colors and an improvement in the blacks. The higher the printer numbers are, the better your blacks will appear. Underexposing the negative, however, is pretty much a lose-lose situation. If you underexpose too far, the image is never going to look great. Of course, this happens all the time, and audiences certainly don't walk out of the theaters complaining about underexposed shots. But if you routinely overexpose your negative, printing closer to a 50 light,

and you suddenly decide that you need to print the scene up a stop [brighter], you've given yourself a solid cushion and have just pulled back into the 'normal' printing zone of your negative. So a good negative is one that gives you room to work with the image."

Explaining exactly how printer lights and the negative relate to each other is where many aspiring cinematographers find themselves caught in a conundrum of color concepts. A film's color image is rendered by the three primary color layers (red, green and blue, or RGB) in the emulsion when a negative is contact-printed onto another piece of film; manipulating the light exposing through the camera negative onto the raw film stock affects the color rendition of the image printed. This alteration of the light passing through the negative is achieved on a typical Bell & Howell Model "C" printer which, through a series of dichromatic filters, splits a beam of white light into its three RGB color components. By using a physical shutter system to "valve" the light into incremental degrees of brightness from values of one to 50, timers can combine these three colors in a nearly infinite range of variations.

"In color timing, you have to worry about four things: density and the three primary colors," explains Phil Hetos, who is head color timer at Deluxe labs in Hollywood and has lent his eye to *Rob Roy, Stargate, Flatliners, Primal Fear, The Firm, The Last of the Mohicans* and *Independence Day*. "When you make a change to an image, you have to perform a bit of a juggling act. For example, when

you make a red correction, you have to worry about density changing as well. You should never make an image so dark that you can't see the actors' eyes; if you can 'read the eyes,' you'll be all right. The beauty in cinematography is in the details — a tear on a face, a shadow, or the pattern a venetian blind creates on a wall. As a timer, you have to make sure that those details are in the final print, because they're the things that make a picture great."

Expanding on this theme, Ray Morfino, head color timer at Fotokem, submits, "We work with a scale of red, green and blue, and also with the secondary colors of cyan, magenta and yellow. By increasing the light value of, say, RGB 30-32-27, you're actually going toward the secondary colors, because you're working with a negative that sees the opposite of what your eye does. Let's say you were to create a scale with RGB on the bottom and CYM on the top. By increasing the value,

respectively, of each of those given lights, you'd make the red light more cyan, toward a cold green look; the green light more magenta — the opposite of green; and the blue light more yellowish.

"By that same token, he continues, "by decreasing those lights, you'd go more in the direction of red, green and blue, away from the complementary colors of cyan, magenta and yellow. However, when you start changing all of the numbers, you need to take the density into account when making your corrections, in order to keep the density constant and not change how light or dark everything is. For instance, if you wanted to increase the blue light in the RGB 30-32-27 scale, adding three points of yellow to the image, you'd have to decrease the red and

green by one each and then add two to blue, for a combination of 29-31-29. That would keep the density the same but add three points of yellow to the scene."

It should be noted that the majority of film labs utilize the RGB scale for making printer light corrections. However, some labs, primarily Technicolor, have adopted the inverse scale of cyan, yellow and magenta. "Technicolor uses a CYM system, so you're dealing with positive colors," explains

ing the same ideas."

If that weren't complicated enough, not all of the printing lights affect the negative in a linear fashion, nor do they behave the same way at various levels of over- and underexposure. Hummel explains, "Let's say that a respective one-point increase in yellow, cyan and magenta [based on Technicolor's CYM orientation] represents a full point of density. One printer point of yellow probably affects 20 percent of that density, a point of cyan equals about 40 percent and a point of magenta equals another 40 percent. Together, they comprise the 100 percent that affects brightness and darkness. If you have two points of yellow, that's only 40 percent of the density; you're not going to be able to notice that the image has gotten any darker if you add or take out two points of yellow. If you add two points of cyan, that's about 80 percent, and you might want to add one cyan, but take out

yellow and a magenta, so that it has a null impact on the density. Cyan and magenta [or red and green respectively] have the most impact on density, whereas yellow [blue] has the least effect.

"The number of light points on the printer that correspond to a camera stop is eight points," he continues. "There's a lot of mythology about it being 10 points, and some people think it's 12. But at .025 Log E per point, it works out to eight points with today's films and a .65 gamma. When I was at Technicolor, I did camera tests for everybody from John Bailey [ASC] to Stephen Burum [ASC] to Victor Kemper [ASC]. If they shot a series of under- and overexposures — ranging from two stops under to two stops over — I would time the normal

RGB Printer-light Cheat-sheet

Printer light change =	Effect on the print
+ Blue	More Yellow
- Blue	Less Yellow (lighter & bluer)
+ Green	More Magenta (reddish-purple)
- Green	Less Magenta (lighter & greener)
+ Red	More Cyan
- Red	Less Cyan (lighter & redder)
+ Green/Blue	More Red
+ Red/Green	More Blue
+ Red/Blue	More Green
+ Red/Green/Blue	Darker in all colors
- Red/Green/Blue	Lighter in all colors

Hummel. "With RGB you're dealing with negative colors, which can lead to confusion. When you're timing at Technicolor and you want to make something more yellow on the screen, the timer will say, 'Oh, then I'll add a few more points of yellow.' But if you sit at another lab, the timer will say, 'Okay, I'm going to add a few points of blue.' At this point, some cinematographers will say, 'What? I don't want it more blue, I want it yellow!' But when the timer increases the blue printer value, it makes the image more yellow. That's why Technicolor began using a CYM system. They felt it made more sense to talk in terms of what you were seeing on the screen, as opposed to the negative-color domain. RGB and CYM simply represent two ways of express-

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exposure to be neutral and then adjust my density four points for a half-stop and eight points for a full stop to match the normal exposure.

"The printers use only a 50-point scale, but they actually have a full trim-range of 75 points. So any individual film lab can place the 50-point range — representing the physical limitation of the shutter that is used in the light path, which has 50 incremental positions — along the 75-point range. Theoretically, you could have a light point of one that equals one on that 75-point scale, or a value of one that equals 25 on that scale. So one lab's single point may very well be another lab's 25. Technicolor's 50 has about another 15 points above it."

After completing their filming and receiving an edited work print, the director and cinematographer generally will sit down with the color timer in charge of their film and screen the work. It is during this session that the timer works to understand the filmmaker's intentions and capture the mood of the film. Often, scenes on the work print will serve as an example of what the filmmakers like and don't like about various scenes. This acts as a guide for the timer while the lab generates what is called a first-trial print.

"Each timer has his own way of seeing colors," says Hetos. "No two timers see things the same way. Likewise, everybody has a different way of talking about colors. The terminology is very important. Some say they want the look to be pastel, some say they want it blue and some say they want a yellow-red or coral look. You have to learn to think like the individual cinematographers and directors. When I start to time a film, I tune myself into what they want; the film is not about what I want. I might have a different theory of how the picture should look like, but if I timed it that way, they'd come in and say, 'My God! You've ruined my movie.' Even though you may not like their colors, you have to do what they like."

"I try to maintain a good rapport with everybody," he continues. "I bend with the wind, and I'll try anything they want to do. If

I do it their way first, then I feel as if I can show them my way of timing the picture. You often have to be a liaison between the director and the cameraman, but it's your job to keep everybody happy."

"When I worked on the film *Mikey and Nicky*," he recalls, "the lab that was originally timing the film was having big problems, and couldn't get it right. The filmmakers brought the picture to us to fix. In the screening I was pointing things out to the director, Elaine May, and she was getting very frustrated. I patted her on the shoulder and told her, 'Don't worry, we'll take care of it.' The next thing I knew, she was biting my arm! For a while I had big teeth marks on my arm, but after that I always did all of Elaine's work."

While screening a first-trial print, timers take notes on the cinematographer's comments concerning each scene's look; a second print incorporating these changes is then made. This way, each successive print moves closer to the filmmaker's wishes. When all parties are satisfied with the look, the resulting print becomes known as the answer print. The answer print's color corrections for each scene are then used to generate an interpositive, from which a fully timed one-light internegative can be created. It is the internegative which will serve to produce all of the film's release prints, protecting both the original camera negative and the interpositive from risky, excessive handling.

Most color timers strongly warn against the use of special coloring filters on the original camera negative. This introduces a color bias to the image that can be difficult to remove in the timing process. "If a cameraman puts in an overall effect for the shot with a color filter, he should really make sure that's what he wants," cautions Muscarella. "If he changes his mind, a timer can't get it out. It's easier for a timer to make it look as if it were shot with a filter than it is to get that effect out. Once you've shot something with a coral, root beer, or tobacco filter, you're going to have a hard time removing that effect if you don't want it. You should test it and get the timer in-



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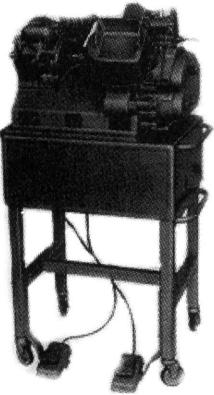
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volved with your camera tests. He'll let you know what can be done. If you shoot with an amber filter and try to pull it out later, all of your blacks will go blue, because that layer in the negative has been altered during exposure. You can't get black blacks anymore unless you put that yellow back in."

It's also important to note that through the generation-steps required to yield a release print, some contrast is added to the image. It is therefore recommended that when doing tests of emulsions (both of camera negative as well as intermediates and release stocks) or special processing (such as ENR or flashing), cinematographers should carry the testing all the way through to the release-print stage to see if any deleterious effect has impacted the shadow detail or the quality of the image.

Rob Hummel says that he always pays close attention to details during optical or contact printing. He states, "When going through the interpositive and internegative steps, you don't lose much in terms of resolution through the generations, especially if you're contact printing. Contact printing results in much less apparent grain than if there's an optical step involved. Super 35 releases pick up much more grain because that format requires an optical step. With an optical print, you're more precisely focusing the grain of the original negative stock, which has about 60 percent less negative area than normal anamorphic, and you're precisely focusing that grain into the next stage when you blow it up and squeeze it to turn it into an anamorphic film frame. If you take a normal 1.85:1 film — from just a daily, not even introducing any dupe negatives — and make a contact print and then an optical registered print, the optical registered print technically will be sharper. But that sharpness is why it won't look as pleasing as a contact print. It will look grainier and pick up a bit more contrast because of the optical step. The optical turns the light into a more specular light source than when it's contacted, and the light kind of diffuses between the two surfaces of the emulsions, which tends to

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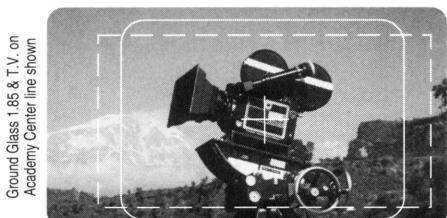
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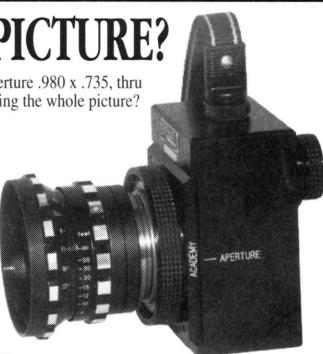


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soften the image bit. No one will tell you that a contact print is soft, but truthfully it is if you look at it under a microscope. It amazes me when people say, 'It's because of improvements in emulsions that you can get away with Super 35.' Well, a rising tide lifts all ships. If Super 35 looks that much better, anamorphic will look better still."

A final consideration in the timing of a film is the choice of a stock to be utilized for the release prints. That decision has been narrowed to Kodak or Fuji now that Agfa has ceased to produce both camera and release stocks. The choice is usually based on economics rather than the aesthetic qualities of the stocks themselves — although some filmmakers have chosen one release stock over the other for a specific palette of color or better contrast.

"Most timers will tell you that they like to work with Eastman print stock, because that's what most labs are set up for," explains Muscarella. "However, any good lab or timer can adapt their timing lights to bring Fuji as close as possible to Eastman standards. If the answer print is on Eastman as a one-light, it's not going to be a one-light on Fuji because the interiors and exteriors don't track the same way between the two manufacturers. So we have to change the light for the interiors or the exteriors. And usually with Fuji, that involves taking green out or putting some magenta in."

"A cinematographer should always follow his or her inherent understanding of where a negative should be exposed, and not alter anything for a film laboratory, because the lab is processing the negative the same way from one lab to the next," Hummel concludes. "The numbers may change from lab to lab, but they all mean the same thing. If you have a normally exposed negative, you can print it up, maybe even a full stop, without severe degradation of the image. But anyone with a good eye will notice that the blacks get thinner when you start lowering the light points. A good negative gives you room to work — the ideal is usually slightly overexposed, and is at least a normal exposure." ♦

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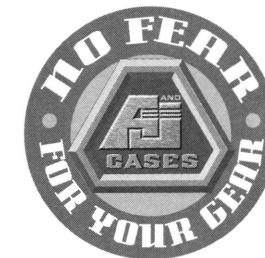
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The Picture of Dorian Gray: Worth a Million Words

Director Albert Lewin and cinematographer Harry Stradling Sr., ASC spearhead classic 1945 screen version of Oscar Wilde's famous tale.

by George E. Turner

*I sent my Soul through the Invisible,
Some letter of that After-life to spell:
And by and by my Soul return'd to me,
And answer'd, "I Myself am Heav'n and Hell."*

This verse from *The Rubáiyát* of Omar Khayyám appears at the beginning and end of a film unlike any other, one in which beauty, wit and horror are intermingled in a unique cautionary tale about the hopeless quest for eternal youth. *The Picture of Dorian Gray* raised the hackles of critics when MGM released it 53 years ago, but it quickly overcame its initially poor reception to command a devoted following.

The movie, which is as faithful to Irish playwright and poet Oscar Wilde's novel as the strict censorship of the time would permit, begins in 1886 as Sir Basil Hallward paints a portrait of 21-year-old Dorian Gray. The cynical Lord Henry Wotton visits the studio and notes that Dorian's wish — to remain young while the portrait grows old — has been made in the presence of a statue of an ancient Egyptian cat goddess. "It's one of the 73 great gods of Egypt and is quite capable of granting your wish," he says. Dorian replies: "I'd give my soul for that."

Dorian soon falls under the spell of Sir Henry, who believes a man should "give form to every feeling, expression to every thought." The young man subsequently falls in love with an innocent music hall singer, Sibyl Vane, but breaks her heart when he follows Sir Henry's advice to put her purity to the test. When the girl commits suicide, a sneer of cruelty mars the portrait.

Hiding the portrait in his childhood playroom, Dorian determines to spend the rest of his life in the pursuit of pleasure. For 20 years he indulges in every vice imaginable. The portrait changes accordingly, reflecting the bestial soul of the man while

Dorian himself continues to appear young. Dorian finally shows the portrait to the horrified artist, Hallward; the painter threatens to tell his niece, Gladys, who is in love with Dorian. Instead, Dorian kills the painter, causing blood to ooze from the right hand in the portrait. A young medical student blackmailed into disposing of the body commits suicide.

When Sibyl's seaman brother, who has been searching for her betrayer for 20 years, is accidentally killed at Dorian's country home, Dorian's conscience makes him break with Gladys. The decency of his act alters the painting slightly. Determined to destroy the

painting and its temptation, Dorian plunges a knife into its heart, and instantly falls dead. His body becomes the horrible creature of the portrait, while the painting changes back to its original appearance.

Wilde's 1891 novel had been filmed at least seven times before in several countries: Denmark in 1910; America in 1913 and 1915; pre-Revolutionary Russia in 1915; England in 1916; Germany in 1917 and Hungary in 1918. The property came into the hands of writer/director Albert Lewin at MGM in 1943.

Lewin (1894-1968) was 50 at the time, a small, scholarly man who graduated from New York University, earned an MA in English from Harvard, and would have had a PhD from Columbia had he completed his thesis. After seeing the German movie *The Cabinet of Dr. Caligari* in 1921, he became determined to make movies. Lewin began his climb up the ladder as a reader for Samuel Goldwyn, then graduated to script clerk, film editor, scenarist, associate producer and finally assistant to MGM executive Irving Thalberg. He produced a string of successful pictures, including the mid-1930s blockbusters *China Seas*, *Mutiny on the Bounty* and *The Good Earth*. When Thalberg died in 1937, Lewin went to Paramount as a producer, leaving in 1940 to form an inde-



An atmospheric publicity photo of Donna Reed as Gladys, George Sanders as Lord Henry and Hurd Hatfield as the despicable Dorian — seemingly hypnotized by the power of the Egyptian cat goddess Sohmet.

pendent company with David L. Loew. In 1943, he returned to MGM as a writer/director. His first project there was *Dorian Gray*.

Although Lewin had enjoyed a long career in motion pictures, this was only his second directorial effort. The first was Loew-Lewin's *The Moon and Sixpence* (1942), based on the Somerset Maugham novel. Lewin had written the screenplay and directed because they couldn't afford to hire out the jobs. Some of the ideas Lewin explored in *The Moon and Sixpence* are developed further in *Dorian Gray*. One is an unusual narrative technique he devised to capture the style of the book, which is told in the first person by a character who also becomes involved in the action. Lewin had Herbert Marshall tell the story, which the action carried forward, and then pick up the narration at intervals where necessary. The inspiration, Lewin admitted, came from a French film by Sacha Guitry, *The Story of a Cheat*.

Lewin had also experimented with color inserts in *The Moon and Sixpence*, which for budgetary reasons had been shot in black-and-white. The picture centers on Strickland (George Sanders), an amoral painter who, like Gauguin, died of leprosy in exile on a tropical island. Lewin commissioned a number of Gauguin-like paintings which were photographed in Technicolor for a sequence in which they are found in a native hut. This effect, another foretaste of *Dorian Gray*, attracted favorable comment.

Lewin was fascinated by an extraordinary painting at the Art Institute of Chicago, *That Which I Should Have Done I Did Not Do*, by Ivan Le Lorraine Albright. The large painting depicts in awesome detail a moulding mortuary door with peeling paint, a dead wreath and a fly so realistic that gallery patrons often argued as to whether or not it was real. Lewin wanted this kind of visual decay for Dorian's portrait, and felt that only Albright could capture it.

This writer became acquainted with Albright in 1948 at the Art Institute, where the artist sometimes came to visit his mentor, Finnish painter Elmer Forsberg. *That Which...* and *Dorian Gray* were both on exhibit there. One day Albright brought in a self-portrait in which pimples, pustules and eye-bags were so intricately rendered that it made him appear almost as awful as Dorian. Actually, the artist was a pleasant, balding little man of about 50, with twinkling eyes and a puckish sense of humor. He and his identical twin, Malvin, a sculptor also known as Zsissly, lived and worked in an abandoned pre-Civil War Methodist church in nearby Warrenton. Their father, a profanity-spouting calendar artist who had become wealthy by painting nostalgic rural scenes of children and dogs, left them a considerable fortune. The brothers never had to earn a living, so they bought the church and worked as they pleased, sometimes taking years to finish a painting. When they did consent to sell anything the price was enormous.

Lewin commissioned Ivan to paint four portraits showing stages of Dorian's dissolution. MGM would pay a \$75,000 fee for exclusive motion picture rights, and let Albright retain ownership of the paintings. When Ivan arrived at Los Angeles' Union Station in November of 1943, he had Malvin with him. Both



introduced themselves as Ivan Albright. A studio was soon set up in a scenery loft at MGM.

Meanwhile, preproduction moved forward. Lewin wrote the script himself. He followed Wilde's book faithfully in most respects, but added the characters of Hallward's niece, Gladys, and a young romantic foil, David Stone, to provide a semi-happy ending. He hired Gordon Wiles, winner of a 1932 Academy Award for his art direction of *Transatlantic*, as his personal assistant. A fine illustrator trained in Paris and Rome, as well as a producer-director in his own right, Wiles made numerous sketches and storyboards that prefigured the groupings and camera angles of the film.

Fortunately, Lewin asked for and got the versatile Harry Stradling Sr., ASC as director of photography. Stradling began his career in American films in 1921. Ten years later he was in Europe working with great directors such as Alexander Korda, Jacques Feyder, Abel Gance, Marcel l'Herbier, Christian-Jaque and others. From 1937 to 1940 he photographed 10 important British pictures, including *Pygmalion*, *The Citadel* and Alfred Hitchcock's *Jamaica Inn*. After returning to Hollywood he worked on numerous films, including two more Hitchcock pictures, for various countries before signing with MGM in 1942. When Stradling started work on *Dorian Gray*, his son was assisting Joseph Ruttenberg, ASC on another notable thriller, *Gaslight*. Stradling Sr. died in 1970. Harry

A specialist in the macabre, artist Ivan Albright works on the genuinely disturbing "after" portrait of Dorian Gray as an old man. Makeup artist Jack Dawn's model stands at left, next to the replica statue of Sohmet.

Top left: A "toff" in evening dress, Dorian is an incongruous figure at the Two Turtles Inn. Top right: David (Peter Lawford), is unable to convince Gladys and Basil Hallward (Lowell Gilmore) that there's something mysterious about Dorian. Bottom: A production sketch of Lord Henry hailing a hack — reproduced faithfully in the film.



Stradling Jr., ASC has carried on the tradition of outstanding cinematography.

Art department chief Cedric Gibbons assigned Hans Peters, whose previous work included *Heidi* (1937) and *Hound of the Baskervilles* (1939) for Twentieth Century Fox, to design the sets. World War II was in full swing, however, so Peters had the formidable task of creating visually sumptuous sets under the government's wartime conservation restrictions, which limited new set construction to \$5,000 per picture. Fortunately, MGM's three backlots were filled with exteriors that could be redressed, and the studio maintained a vast inventory of walls, fireplaces and other interior parts. Many of the interiors were literally pieced together from the inventory.

Unit set decorators Hugh Hunt and John Bonar had the task of supplying authentic period trappings, from fine furniture to bric-a-brac. Lewin was determined that the style of the film would be as exquisitely detailed as the painting. "I really went to town on every setup," he said in an interview in *The Real Tinsel*, a 1970 book by Bernard Rosenberg and Harry Silverstein. "I was even careful about the table linen and the cutlery and whatever was on the wall. All the upholstery was built for me... I packed it full of symbols." Even the initials formed by the building blocks on the floor of the fateful playroom symbolize the characters of the story.

A key symbol was the statuette of Sohmet, the Egyptian cat goddess, which is not in the book but which Lewin wrote into the movie. Unwilling to settle

for a mere prop, Lewin found that the two known authentic statuettes of the deity were in the Louvre (then in enemy hands), and in the St. Louis Art Museum. The latter facility's acting museum director, Charles Nagel Jr., objected to a request to make a cast from the 2,500-year-old artifact for fear of marring its patina. Permission was granted after prolonged negotiations when a special moulage material was found. The cat, which leans forward menacingly, is featured in as many scenes as were feasible, sometimes merely as a passive observer and other times as a malignant force.

The pivotal role of Dorian was played by Hurd Hatfield, who had debuted alongside Katharine Hepburn in 1944's *Dragon Seed* and would later appear in such notable pictures as *Diary of a Chambermaid* (1946), *El Cid*, *The King of Kings*, *The Boston Strangler* and *Thief*. George Sanders, though not an easy actor to work with, had played Strickland so well that Lewin persuaded MGM to secure him to portray the caustic Lord Henry. Hard-boiled and easily riled, Sanders had only recently slugged producer Robert Bassler at Fox. Sir Cedric Hardwicke, who does not appear in the film and is not listed in the screen credits, was chosen to be the anonymous narrator. Angela Lansbury, a remarkable young English actress who had just made a stunning debut as a promiscuous maid in *Gaslight*, is equally fine in the completely opposite role of a betrayed innocent. Promising contract players Donna Reed and Peter Lawford were given the juvenile leads, while a Broadway actor relatively new to the screen, Lowell Gilmore, was well-cast as Hallward. Supporting roles were handled by an unusually large cast of mostly British players, including Lansbury's mother, Moyna McGill.

During prep, the valuable publicity generated by the Albright twins' Hollywood sojourn brought smiles to the powers at MGM. Makeup chief Jack Dawn furnished Ivan with models: two costumed mannequins equipped with Hatfield life-masks made up as young and old Dorians. At Ivan's insistence the studio also provided a bit-player named Skeets Noyes as a live model for detail work.

Nothing, however, causes more anxiety among studio supervisors than the passage of time. To the consternation of producer Pandro Berman and the

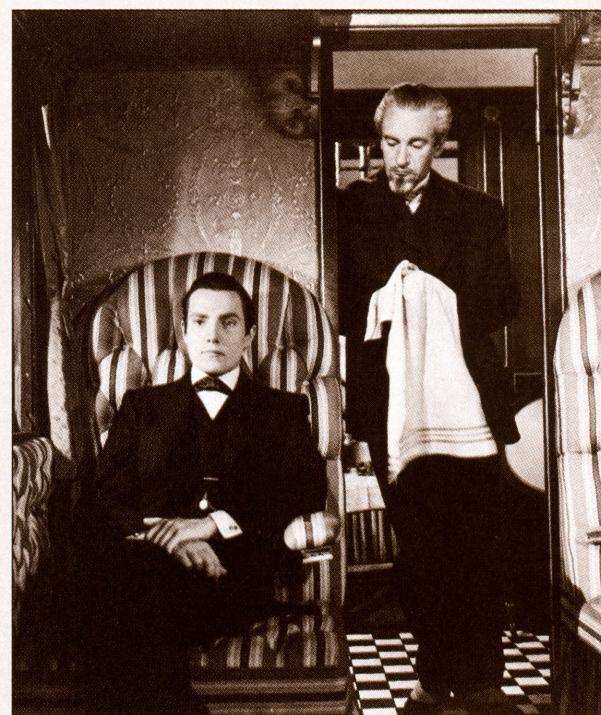
studio executives, it became evident that Albright could not be hurried. When it became obvious that the artist would not have time to paint more than one of the portraits, the studio rushed in Portuguese portraitist Henrique Medina to paint the young Dorian. Medina's portrait, done in the Sargent tradition, is excellent, although Dorian's body is turned more to the left than it is in the Albright, and the techniques of the artists are totally dissimilar.

Albright completed his portrait of the ravaged Dorian in September of 1944. The painting, which measures 7'1" x 3'6", could hardly be surpassed in its depiction of the horrors inflicted by decay, degeneracy and disease. Bulging, bloodshot eyes stare from between swollen lids, a ragged syphilitic mouth reveals rotting teeth, and the entire visage is a mass of excrescences and chancroid growths. The hands are swollen and disfigured. A fungoid blight has all but destroyed clothes, wallpaper, furniture, a dressing screen and everything else in the scene except the Egyptian cat, which sits regally undisturbed by the surrounding putrescence. Albright had gone so far beyond Jack Dawn's concept of Dorian's dissipation that the makeup artist had to sculpt a more gruesome version of the mannequin for its brief moment onscreen as Dorian's corpse.

Although he was determined from the first to make the film in black-and-white "because of the good and evil symbolism," Lewin knew that the portrait would only be effective in color. Four scenes in which the painting was shown alone were photographed in Technicolor and spliced by hand into the release prints. The first color insert is of the Medina portrait when Hallward reveals it to Lord Henry and Dorian. The second follows Dorian's reiteration of his wish that the portrait would age in his stead. The first time the Albright portrait appears, when Dorian reveals it to Hallward, is a color shot in which the camera pulls back from a close-up of the ravaged face. After Hallward's murder, the Technicolor camera moves down from the painted face to a close-up of the right hand oozing blood. Albright, having decided that the cosmetic blood sent by the makeup department was unconvincing, had obtained fresh chicken blood from the studio commissary and, to the model's discomfiture, daubed it on Noyes' hand.

Lewin had intended to show the portrait's return to its original appearance via a series of gradual optical dissolves. This was not possible, however, given that the two paintings had unmatched poses and widely different painting styles. The director had to settle for a black-and-white sequence in which the Albright painting changes to a swirling mass of indistinct forms, from which the Medina painting emerges. The knife handle is matted in, and thus remains unchanged. The effect is impressive, but could have been more so in color.

Lewin did become carried away with a desire for perfection. He had made *The Moon and Sixpence* in 32 days at a cost of \$401,000, but *Dorian Gray* was an entirely different matter. The late Carroll Shepphard, who was in charge of the process effects, recalled making a scene of Lord Henry riding in a hansom, with the shadow of the driver visible on the street



outside. This was done on the process stage with the street projected on a translucent screen. Lewin called for take after take. Shepphard worried that the background plate wouldn't last through it. The director finally called a halt after the 92nd take. When he looked at the rushes the next day, he selected the first take.

The entire picture was photographed at MGM except for the outdoor sequence in which Sibyl's brother is killed in a hunting accident. All the sets are unusually large, both in breadth and height, with big pictures on the walls and tall doors. Stradling's sharp, deep-focus photography is very unlike the prevailing MGM style of that time, which tended to be softly lit and glamorously diffused. Faces are carefully modeled, however. Those of Sanders and Hatfield are usually lit so that one side is highlighted and the other is much darker. Hatfield's face had imperfect texture, which wouldn't do for the too-perfect Dorian. Aided by the makeup department and careful lighting, Stradling made the actor appear unblemished. Very little diffusion was needed for the young, fresh faces of Lansbury and Reed.

Most of the film's scenes are carefully composed shots with little or no camera movement. The occasional camera moves are subtle, such as a slow track-in to Dorian as he reads a poem, or dolly pull-backs to reveal more of a room or to place the Egyptian cat into the foreground.

Sanders prowls through the film, drawing the wealth of Wilde epigrams so perfectly that he dominates the cast with what is probably his finest performance. Various lines — such as "The one charm of marriage is that it makes a life of deception absolutely necessary for both parties," or "The only difference between a caprice and a lifelong passion is that the caprice lasts a little longer" — seem to have been tailored for Sanders' laconic delivery. Hatfield coolly

Dorian and the caustic Lord
Henry travel in
a private rail
car. The film's
evocative
lighting and
camerawork
earned director
of photography
Harry Stradling,
ASC an
Academy
Award.

Dorian Gray
confronts his
dark soul, as
interpreted by
Ivan Albright.
Director Lewin
effectively used
color shots of
the portrait in
the otherwise
black-and-
white film in
order to
maximize the
shock of its
gradual
putrefaction in
accordance to
Gray's dastardly
deeds.



underplays Dorian in most scenes, withholding emotion to underline the character's loss of soul. Lansbury, who had just earned an Oscar nomination for her work in *Gaslight*, did equally well in the sympathetic characterization of Sibyl Vane. Gilmore is fine as Hallward, and the other players do well in their roles.

Herbert Stothart's musical score is restrained and beautiful. In addition to his original material, which includes a bittersweet main theme, he uses Chopin's "Prelude for Piano No. 24 in D Minor," which Dorian plays on the piano several times, as the main character's motif in the orchestral score. Sibyl's song, "Goodbye, Little Yellow Bird" likewise is identified with her. Stothart was a former composer of operettas ("Rose Marie," "Golden Dawn") and an MGM composer-conductor until his death in 1949.

Aside from the portrait itself, the most talked-about parts of the film are the slaying of Hallward and Dorian's death scene. As Hallward falls, his body strikes a large swag lamp, which begins to swing wildly on its chain, causing the shadows to leap and distort. This is repeated at the end when Dorian stabs the portrait and falls back, striking the lamp. (Incidentally, the ultra-critical Lewin, whose eyesight was worsening at that time, failed to note that the wire used to set the lamp in motion is visible.) The swinging light made such a strong impression that it has been reprised often, most notably in Alfred Hitchcock's *Psycho* (1960). *Dorian Gray* is generally thought of as the film that introduced the effect, but it was used a decade earlier by Victor Seastrom in the MGM silent film, *The Wind*, for the scene in which Lillian Gish shoots Montagu Love. Lewin was

Seastrom's closest friend at that time.

Perhaps the most curious thing about the film was unconditional support it received from Louis B. Mayer, the often volatile top man at MGM. The studio's lesser executives became horrified as *Dorian Gray*'s production time lengthened and costs continued to rise far beyond budgetary estimates. Mayer benignly brushed their complaints aside and kept encouraging Lewin to make the picture as he saw fit. The final cost was about \$1.8 million. When Mayer saw the finished product, he wrote a glowing letter to Lewin stating that he was proud to have the studio represented by such a prestigious picture. He made no comment about the cost.

As Lewin said later, *Dorian Gray* "didn't make anybody rich," but the public liked it well enough that it grossed more than \$3 million. Most of the critics, however, were cold to the film, citing in particular Hatfield's deadpan performance and an overdose of narration. Val Lewton, who made similarly fastidious pictures for much less money, hated the picture and called Lewin "an old poop."

On March 7, 1946, D. W. Griffith presented Harry Stradling with a richly deserved Academy Award for his black-and-white cinematography. Also nominated were Angela Lansbury for supporting actress, Cedric Gibbons and Hans Peters for art direction, and Edwin B. Willis, John Bonar, and Hugh Hunt for set decoration.

Much later, *The Picture of Dorian Gray* gained new popularity on television and in video. Several later theatrical and TV versions of Wilde's tale have come and gone, but only Albert Lewin's one-of-a-kind opus has been ranked as a bona fide classic. ♦

Credits

A Metro-Goldwyn-Mayer production; produced by Pandro S. Berman; directed by Albert Lewin; screenplay by Albert Lewin, based on the novel by Oscar Wilde; musical score by Herbert Stothart; colored inserts in Technicolor; director of photography, Harry Stradling, ASC; paintings of *Dorian Gray*, Ivan Le Lorraine Albright; paintings of *Dorian Gray as a young man*, Henrique Medina; special assistant to Mr. Lewin, Gordon Wiles; recording director, Douglas Shearer; art direction, Cedric Gibbons, Hans Peters; set decorations, Edwin B. Willis; associates, Hugh Hunt, John Bonar; costume supervision, Irene; associate, Marion Herwood Keyes; men's costumes, Valles; makeup created by Jack Dawn; film editor, Ferris Webster; special effects, Warren Newcombe, A. Arnold Gillespie; process photography, Carroll Shepphard; sound technician, William R. Edmondson; assistant director, Earl McEvoy; Western Electric recording. Running time, 111 minutes. Released June 1945.

Lord Henry Wotton, George Sanders; *Dorian Gray*, Hurd Hatfield; Gladys Hallward, Donna Reed; *Sibyl Vane*, Angela Lansbury; *David Stone*, Peter Lawford; *Basil Hallward*, Lowell Gilmore; *James Vane*, Richard Fraser; *Allen Campbell*, Douglas Walton; *Adrian Singleton*, Morton Lowry; *Sir Robert Bentley*, Miles Mander; *Mrs. Vane*, Lydia Bilbrook; *Lady Agatha*, Mary Forbes; *Sir Thomas*, Robert Greig; *Duchess*, Moyna MacGill; *Malvolio Jones*, Chairman, Billy Bevan; *Young French Woman*, Rene Carson; *Kate*, Lillian Bond; *Devi Dja and Her Balinese Dancers*; *Pianist at Blue Gate Field*, Pedro de Cordoba; *Lady Marlborough*, Anita Sharpe-Bolster; *Butler*, Charles Coleman; *Street Evangelist*, Arthur Shields; *Butler*, Frederick Worlock; *Gamekeeper*, Lumsden Hare; *a Lord*, Herbert Evans; *Bordello Attendant*, John George; *a Lord*, Rex Evans; *Stage Janitor*, Joe Yule; *Stage Pianist*, Jimmy Conlin; *Customer*, Al Ferguson; *Servant*, Harry Allen; *Bentley*, Wilson Benge; *Policeman*, Frank O'Connor; *Barman*, George Regas; *Cockney*, Skelton Knaggs; *the Narrator* is Sir Cedric Hardwicke.

On the Spot

Cloned Kids Crowd Visa Ad

by Mary Hardesty

The Hollywood Bowl was recently filled with thousands of digitally cloned kids for a national Visa spot directed by Jim Gartner and shot by cinematographer Tom Olgeirson. The ad displays Danny Glover reading a story to a group of youngsters. The actor has barely begun, however, when he is interrupted by a child who wants to know why the dragon in the story has fire in his eyes. Before Glover can resume reading, another child asks a question, then another. It is then revealed that Glover is reading to a Hollywood Bowl packed with kids, and that all of the many thousands of children have their hands raised.

The throngs of kids sitting in the Bowl are actually a cleverly crafted illusion presented with the help of Mark Kolpack of Burbank-based Perfx and Wayne Shepherd of Editel/L.A. Olgeirson worked with just 300 children, photographing them from various angles sitting in different sections of the arena. Henry compositor Shepherd then replicated and combined those elements to make the stadium appear as if were at full capacity.

Honored by the ASC in 1990 for the pilot of *Gabriel's Fire*, Olgeirson has also shot numerous movies of the week and spots for the likes of Ford Motor Co's Lincoln, Apple Computer, Fed Ex and Saturn cars. Recalling the Visa spot, he says, "It was a wild day. We photographed 300 kids, aged two to four, in a section of the Bowl with a locked-down camera, then moved them to another section and filmed so that Mark could clone them in post. Also, we extended the stage out over the front box seats to make it appear larger when we shot the reverse angles of Danny sitting there talking to the kids. For those shots we only had the use of about 25 kids, so the rest were digitally cloned. It seemed that we barely got started shooting be-

fore the kids had to go back to school."

While most of the problems were worked out well ahead of the actual shooting day, the production crew overlooked one detail. "The Hollywood Bowl holds about 30,000 people, but when kids sit on the benches, they don't fill up the space entirely, so there are times when you can't see them over the seats," recalls Olgeirson. "Wayne actually ended up digitally creating about 60,000 kids!"

Shooting outdoors with small children and a celebrity created some heavy restrictions, so it was essential that the preproduction days be used as effectively as possible. "Fortunately, Jim tends to iron it all out with the client before we start shooting," notes Olgeirson, who has been shooting primarily for Gartner Grasso, L.A. for the past two years. "He also storyboards the entire shoot, and doesn't go off on tangents. It was a great operation from the top down."

The various factors involved in the shoot meant that it had to be planned out with military precision. Although there was only one tech day scheduled, Olgeirson said that the process really took two. "My assistant, Mako Koia, steady-tested our Panaflex Platinum beforehand," notes Olgeirson. "We found that Panavision Hollywood has got some of the steadiest Panaflexes around."

The day before shooting, a scout was sent out to check light coordinates at different points during the day in the Bowl. "In September, the sun goes down in the Bowl at around 4 o'clock, and comes up at 9:30 or 10 a.m.," observes Olgeirson. "We also use a computer light-coordinate taker, but I find that the directors like to see something laid out on paper so they can visualize exactly what is going to happen with the light. It really is like the old saying: a

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picture's worth a thousand words."

Olgeirson often uses Vision 500 stock for effects-heavy spots, but for this job, he felt that Kodak's 5293, a fine-grain film that offers a bit of contrast, was more appropriate. "I shot at f5.6 and 8—not a really deep focus, but enough so things wouldn't look as if they were on different film when the post guys started to clone all of the filmed kids."

Olgeirson spent the first day shooting and moving the kids all over the Bowl, and the second day shooting Danny Glover. "After Danny left, we used a stand-in on stage to finish up, because he was just a little speck in some of those shots," Olgeirson recalls. "Since we had done a lighting study, we were able to predict what the sun would do to match wide shots with the close-ups."

The cameraman was armed with an Aaton for many of the close-ups. "Aatons are great; they're so lightweight you can jump right in there, and they take all of the Panavision lenses," observes Olgeirson, who recommends taking along an extra magazine or two. "Sometimes they can be a bit noisy, but they're still nice little cameras to have handy."

Because Glover's schedule was so tight, Olgeirson wound up shooting him at high noon. "The light was just boiling in the Bowl, so I had to look for the parts that weren't lit by the sun," he explains. "Our grip, Johnny London, built this huge Griffolyn tent to put the whole stage in shadow. The place looked like a ship gone asta!"

Instead of taking away light, Olgeirson added light with soft arc lights and MR bank lights. "We also lit with Dinos and corrected a bit with nets and Tiffen SoftFX [filters]," the cinematographer adds. Interestingly, he has noticed that instead of looking softer, the final spot now looks harder than the original footage. "I think machines like the Rank [telecine] have gotten so good that you don't have to worry about compensating so much for the generation loss." ♦

30-second spot: "How Come?"

Client: Visa USA

Cinematographer: Tom Olgeirson

Director: Jim Gartner

Production Company: Gartner Grasso, L.A.

Agency: BBDO, Los Angeles

Special Effects/Post:

Perfx (Burbank) and Editel (L.A.)

On January 28, the ASC held a dinner meeting for its members at the Museum of Flying in Santa Monica, CA. The theme for the dinner was Aerial Technology in Cinematography. Record numbers of Society members and guests turned out for a spectacular presentation spearheaded by dinner-meeting committee chairman Bob Primes, ASC and orchestrated by Rexford Metz, ASC, who contributed his aerial-savvy expertise.

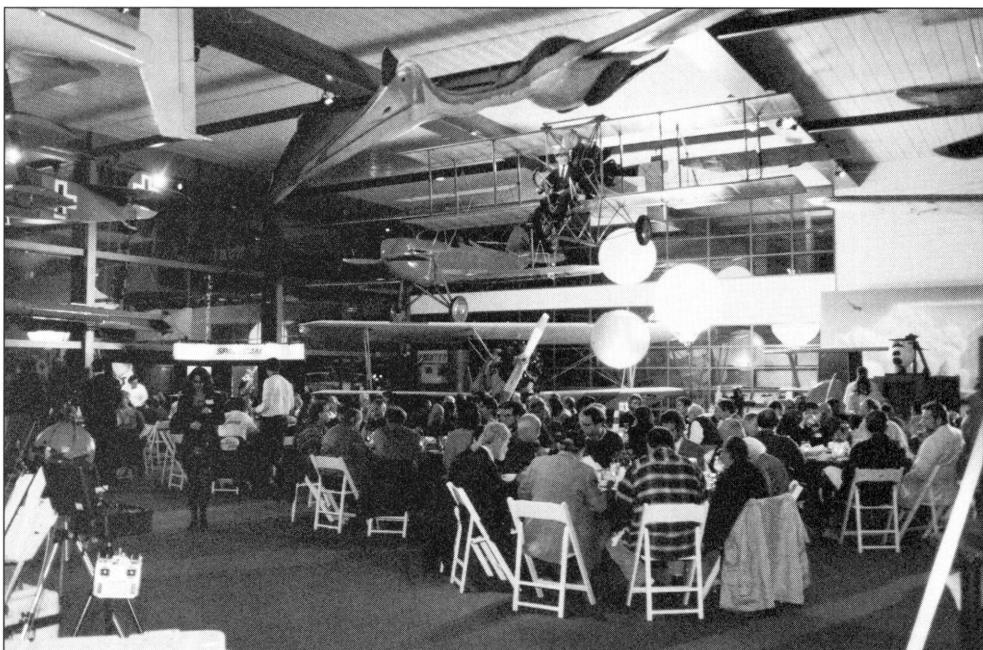
Associate member Andy Romanoff, president of Louma Crane L.A., networked a sophisticated live-video presentation with feeds from flying cameras, demo-reel clips, handheld event-cameras (providing close-up images of the gear in action), and startling live images received from helicopter via Wescam's RF broadcast system.

Eight equipment manufacturers displayed their products, which were split into two categories: aerial camera systems and aerial lighting devices. Presentations were made by Peter McKernan of McKernan Motion Picture Aviation for Tyler Camera Systems; Terry O'Rourke for Wescam with helicopters provided by John Saviss of Helicopters West; Robert Mehnert and Ron Goodman for Spacecam Systems;

Flight Night

The ASC examines a score of airborne apparatus.

by Christopher Probst



Emmanuel Previnaire for FlyingCam;

Angelo Fattoracci for Flying Eye Project; Dan Wolfe for WolfeAir; Mary Hidalgo for Bright Moon Balloon; and Stephen

Lockie for Air Light Industries.

What follows is a brief breakdown of the various aerial products and their capabilities.

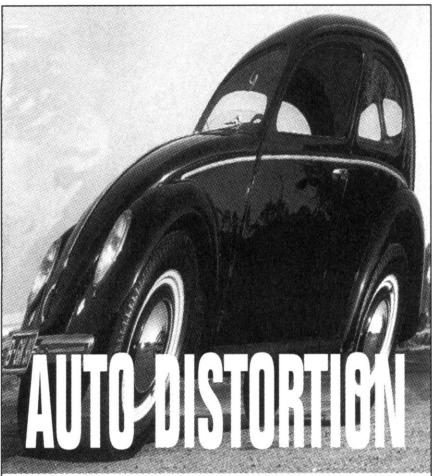
Space Cam

A forerunner of the gyro-stabilized helicopter mount platforms, Ron Goodman's Spacecam lists in its credits such films as *Titanic*, *Volcano*, *Twister*, *The Flood*, and *Con Air*.

Capabilities:

- Only system that can be mounted on the nose or tail of a helicopter.
- Achieves flight speeds 70-80% faster (up to 140 m.p.h.) than other systems.
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Offering the appropriate decor, the Museum of Flying in Santa Monica played host to the ASC's January 28 dinner meeting. Helium-filled fixtures offered by Bright Moon Balloon (above) and Air Light Industries (bottom left, left side) brightened up the museum's interior while one of Air Light's larger inflatable luminaires floated outside as an unmistakable landmark for eventgoers.



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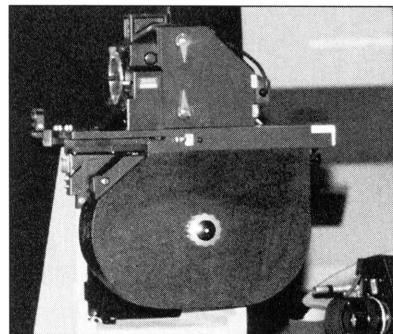
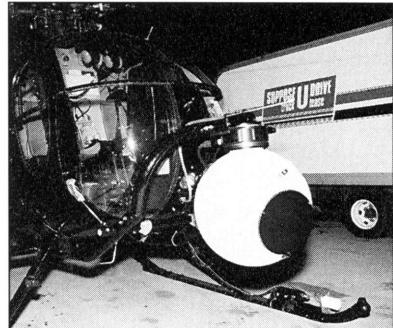
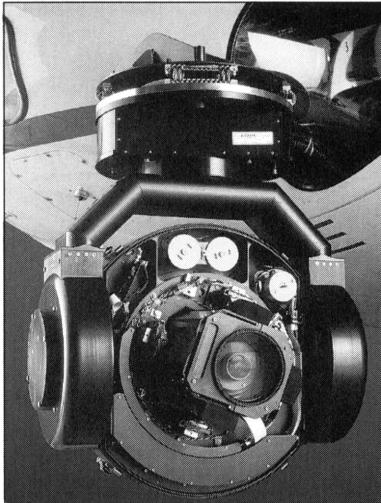
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- Option of 1-120fps motor on all 35mm systems, 1-48fps on VistaVision and 1-72fps on 65mm systems.

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Wescam

Wescam has a 20-year track record in the gyro-stabilized aerial camera mount industry. The company's credits include *Clear and Present Danger*, *Basic Instinct*, *Interview with the Vampire*, *Dave*, *The Pelican Brief*, *The Hunt for Red October*, *Hoffa*, *Lethal Weapon III*, *Hoffa* and *True Lies*. Wescam is a top contender for the bulk of the aerial work in feature films and commercials today.

Capabilities:

- 360-degree continuous panning.
- Tilt angles of +30 degrees and -90

Clockwise from top:
A stabilized rig
from Tyler Camera
Systems; a
helicopter mount
from Wescam; a
Space Cam camera
and mag unit; and
the 3-axis Gyron
from WolfeAir.

- degrees down (from horizon).
- Camera and lens functions are remotely controlled and monitored from operator's console.
- Environmental protection and crystal-clear imaging provided by dome enclosure and patented tracking flat optical glass porthole.
- Mount available for helicopters, boats, camera cars, tracks and other moving vehicles.
- Also able to integrate VistaVision (Empireflex or Beaumont), Super 35, or Photosonic cameras.
- Can support Panavision prime lenses.

Technical Breakdown:

- Utilizes a Mitchell S35R Mark II camera.
- Features a Cooke 10:1 (25-250mm) T4.0 Lens.
- Carries Arriflex 1000' BL magazines.
- Allows speed and aperture control (crystal-controlled 1-60fps).

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- Smooth Tyler zoom, focus and on/off control located on hand grips.
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Technical Breakdown:

- Mount adapts to your production camera: Arri/Panarri (35-II, 35 BL, 435 and 535) Panavision (Panaflex, System 65 and Panastar), Mitchell (S35R and MkII), VistaVision, Showscan and Imax.
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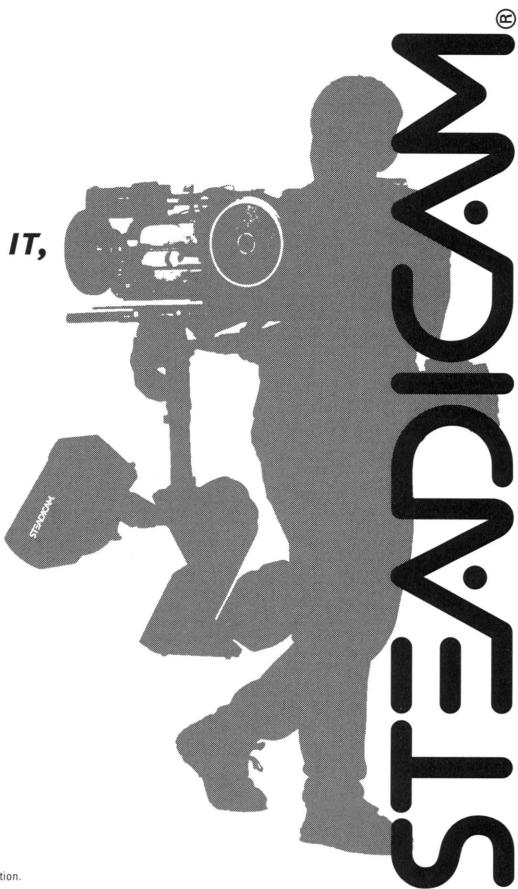
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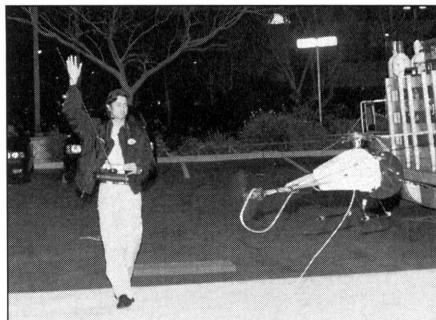
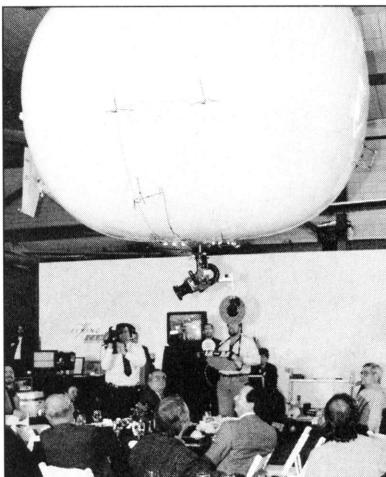
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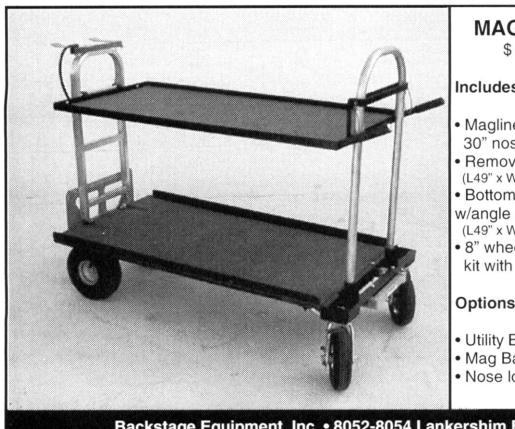
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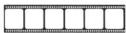
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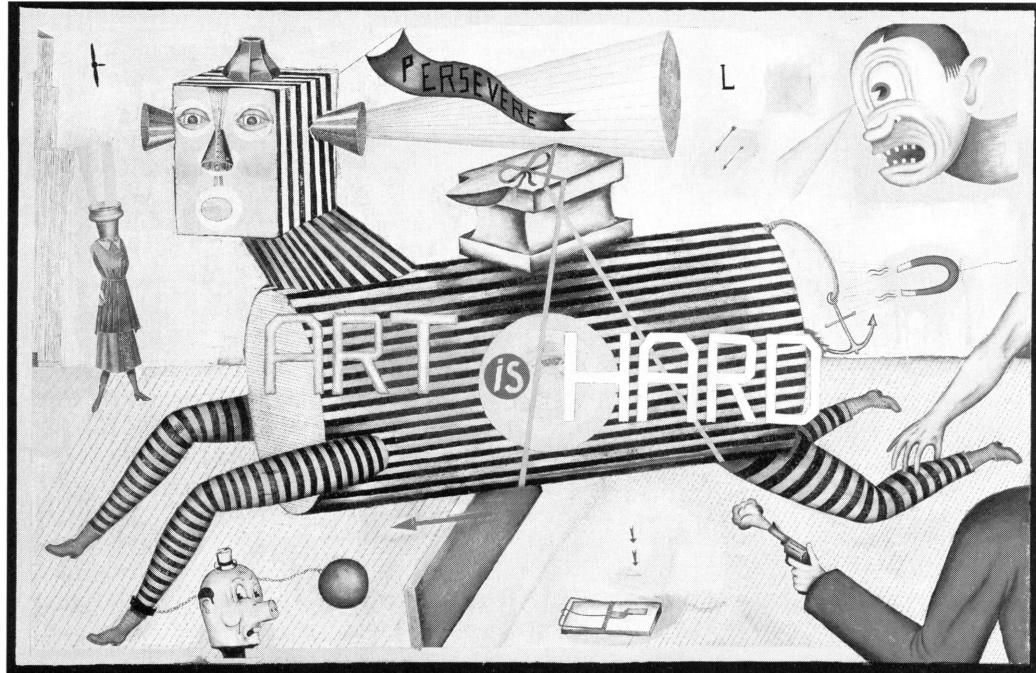
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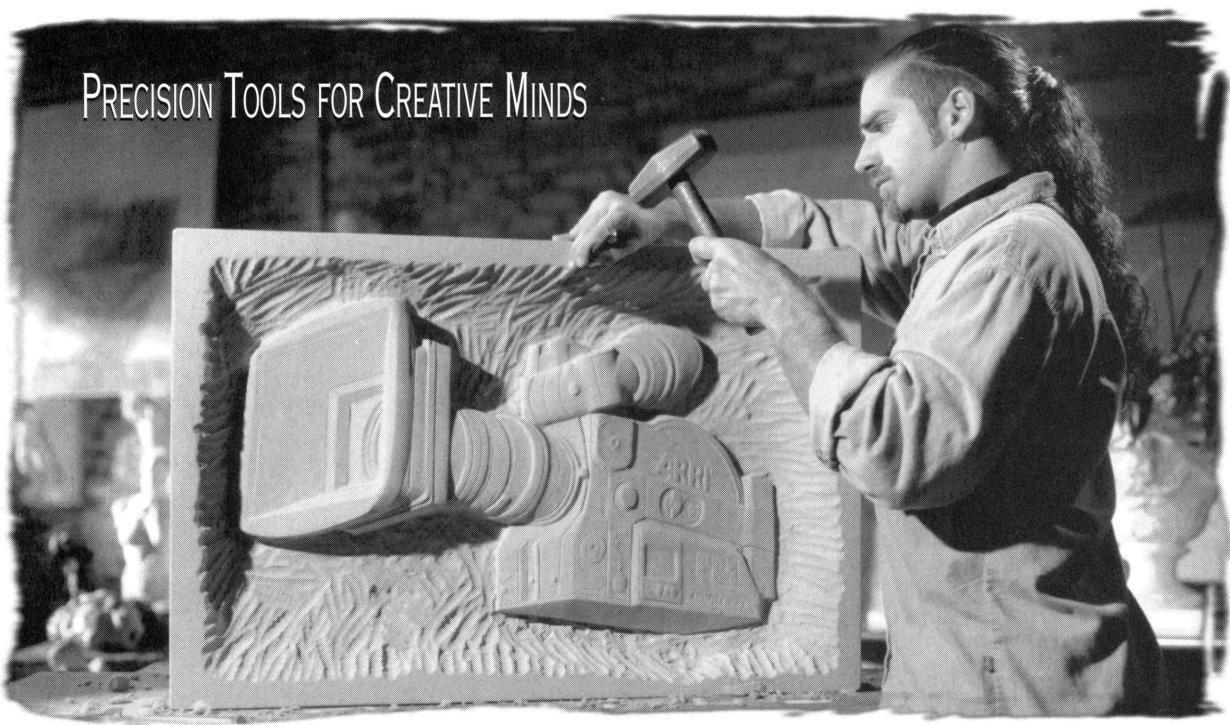
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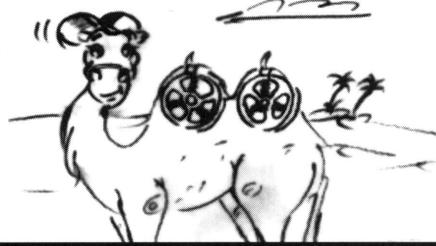
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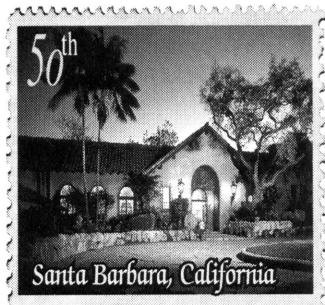


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Points East

Marc Paturet, founder/owner of the 15-year-old New York-based rental house Hand Held Films, always sought a career in the film business, but on the other side of the camera. He had attended acting school in Paris, but says the experience "turned out to be more like psychoanalysis for me, so I never became an actor." Upon relocating to America, Paturet discovered his penchant for directing and recording sound. He struck upon the idea of investing in his own camera while directing a reggae documentary on location in Jamaica with gear that turned out to be faulty. "I rented a video camera, but they gave me the wrong battery, which blew up the camera. That's when I decided that I should have my own equipment, and I bought my first Aaton." Soon, he was renting packages out of his third-floor apartment in a Lower East Side tenement building; his space had no elevator or intercom, so clients had to yell their names from the street to get the key.

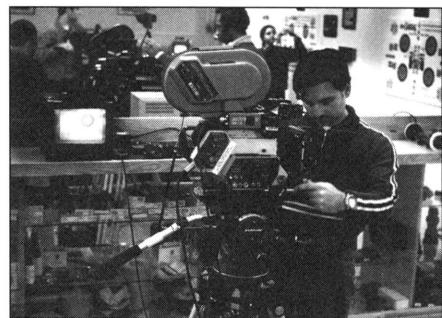
Paturet dubbed his company Hand Held Films after witnessing an accident on the set of a fur commercial that destroyed one of his Aatons; the incident reminded him of Jean-Luc Godard's famous precept from his picture *Everybody for Himself*, in which the director stated that the most difficult part of moviemaking was carting the film around by hand. Recalls Paturet, "That job was back in 1987, and there was a lot of aggravation among the crew because they hadn't been told that this would be a fur commercial. Anyway, there was a big wind machine, and the cameraman tripped over the dolly grip, smashing the camera. It was the first time an accident like that had occurred with my gear."

When Paturet began buying Aatons, the French cameras were being represented by Panavision, which soon went out of the 16mm business. Paturet purchased their line, lock, stock and lens. In 1994, he bought Panavision's Moviecam inventory. Students on whose projects Paturet had recorded sound were now renting his Moviecam Compacts for independent films such as *I Shot Andy Warhol* and *The Myth of Fin-*

gerprints. "That's when I stopped doing sound recording, or rather, began accepting [recording jobs] on documentary work only," he says. His last sound credit was on Barbara Kopple's Academy Award-winning 1990 documentary *American*

Hand Held Films: A New York Story

by Brooke Comer



Dream, which details a strike in a Midwestern meat factory.

Paturet considers himself fortunate to have worked on *When We Were Kings*, Leon Gast's Academy Award-winning feature documentary about the 1972 George Foreman/Muhammad Ali fight in Zaire. Hand Held Films provided the Super 16 cameras and recorded sound for the project, which included interviews with Norman Mailer and Spike Lee. In addition, Paturet's voice was dubbed to substitute for those of French-speaking interview subjects.

Today, Hand Held Films' clientele can choose from various types of cameras: Moviecam, Arriflex, Aaton, Sony Betacam and Bolex, among others. Clearly, Paturet is bent on responding to the diverse demands of the marketplace. "Independent filmmakers love to shoot with Moviecam," he points out. "The Moviecam is the quietest sync sound camera, and the technology is state-of-the-art. It is lightweight, ergonomic and

First AC Rick Sarmiento examines a Moviecam Compact at New York's Hand Held Films.

Jimmy Jib

very modular, and you can configure all three modes — Steadicam, handheld, and studio — in a snap. Even Arriflex bought into Moviecam so that they could use that technology in their current cameras." But he's also quick to note that "Arriflex has kept its reputation as the most rugged camera on the market. And when you rent a camera for a couple of days on a commercial or music video, it is going to endure more abuse than it would on a long-term project."

Given Paturet's extensive background in production, he holds an informed perspective on the worthiness of time coding. "Though it has its uses — say when shooting multi-camera concerts or documentaries — it has not proven itself in all production arenas," he opines. "The lack of consistency between various manufacturers — from different communication protocols and types of time code connectors — has resulted in too many snafus on the set."

There is a common misconception that the name of Paturet's rental company is Hand Held Cameras. But any visitor to the company's Chelsea loft — home to a 10-person staff, state-of-the-art machine shop and new MTF lens bench — will realize that Hand Held Films thrives on both diversity and the desire to assist New York filmmakers. "I felt the need to diversify and to offer a hands-on approach because I realized that this business is not only about the cameras," says Paturet. "We are always expanding and growing, but we never really plan how. The challenge is to be constantly revamping the inventory, to buy and sell new and used equipment.

"Today, we complement our camera line with sound recording, time coding, communication devices, non-linear editing and even video. But although we deal with many technologies, we're more interested in the service of human nature. In the end, this comes down to passion — the clients' and ours — for making films.

"At heart, I see myself as a filmmaker," he concludes. "The modus operandi at Hand Held Films is that we are as busy as can be three seasons out of four, and we are crazy about all of our own projects and passions when we are slow. New York is the perfect place to do that, and it's also just a wonderful place to be." ♦

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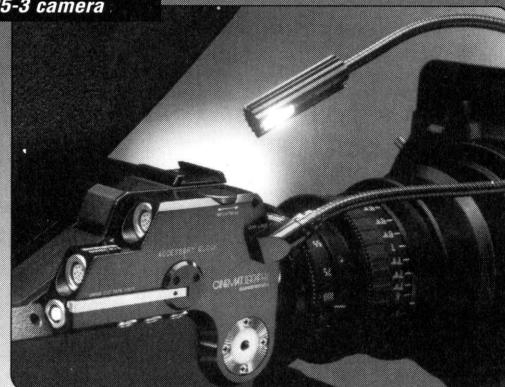
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YOUR DAILIES CHOICE:

Books in Review

by George Turner

Lugosi

by Gary Don Rhodes
McFarland, 456 pps.,
library binding, \$55.

Considering that he spent much of his career being shoved into some of the most inept pictures of all time, it's remarkable that Bela Lugosi (1882-1956) has attained a degree of immortality granted to a mere handful of movie stars. The Hungarian actor created the unforgettable image of a mysterious outsider with a colorful past, as exotic, doom-laden and old-fashioned in its way as Theda Bara's fabled vamp. After creating a sensation in the stage and screen versions of *Dracula*, Lugosi became typecast as a horror star. As the popularity of horror pictures waxed and waned, he led a feast-or-famine existence.

Rhodes, an English instructor at the University of Oklahoma, has done a fine job of researching the Hungarian actor, debunking the myths while unearthing the facts and compiling career statistics. The tome is divided into four sections: Lugosi, the Man; Lugosi, the Performer; Works By or About Lugosi; and Critique and Appreciation.

The author notes that even when shorn of all the hype, Lugosi's life was fascinating. Publicists used to hint that he might have a lot in common with Count Dracula. The actor didn't, of course, but his home town of Lugos (source of the name that Bela Ferenc Dezso Blasko made famous) was 50-odd miles from the real Castle Dracula. He lived in at least six countries and was involved in politics, a revolution, a war, five marriages and innumerable affairs. He amassed a large body of work during a half-century in theater, vaudeville, movies, radio and television. Drugs and alcohol took their toll in his later years, and Rhodes makes a good case for his being a secret victim of the red scare blacklist of the 1950s.

It's ironic that while Lugosi died in poverty, he maintains the status

of an icon four decades later. Art auction houses sell posters from Lugosi films for thousands more than they can get for similar material from, say, *Gone With the Wind*. He is the subject of a tremendous merchandising industry, and will soon be featured on a postage stamp. What a pity he isn't around to enjoy it!

The First Hollywood Musicals

by Edwin M. Bradley
McFarland, 400 pps.,
library binding, \$65.

For three decades, several pioneer filmmakers, including Thomas A. Edison and D. W. Griffith, tried to make a success of motion pictures synchronized with music, but the idea never jelled until Warner Bros. introduced their Vitaphone system in August of 1926. From that time on, the future of the movie musical seemed assured, as studios in California and New York began delivering them in droves. For a while, pictures advertised as "All Talking! All Singing! All Dancing!" raked in more than their share of the chips, but by 1932 the public was choking on a massive overdose of repetitious musicals. After 171 features and hundreds of musical short subjects, the genre had become box-office poison. Musicals soon made a big comeback with a livelier approach, but that's another story.

Bradley focuses on the first cycle of musical features that rose and fell with meteoric swiftness. For each, he provides full casts, credits, critiques, synopses, song lists, production notes and other information. Some of these films were marvels of their time, including *Hallelujah!*, *Sunny Side Up*, and *King of Jazz*. Most were Broadway-revue-type conglomerations of song, dance and comedy routines such as *Paramount on Parade* and *The Show of Shows*. There were numerous operettas, including good ones like *The Love Parade*, but most of these didn't catch on with general

audiences, and some were absolutely awful, e.g., *Golden Dawn* or *The Lottery Bride*. (Incidental aside: those cameras in the soundproof booths in early talkies were not really hand-cranked.)

The same general territory was covered in less detailed fashion in Miles Kreuger's pioneering work *The Movie Musical from Vitaphone to 42nd Street* (1975), and more expansively in Richard Barrios' exemplary *A Song in the Dark* (1995). *The First Hollywood Musicals* is sufficiently different from either of these (especially in its extensive credit listing for each entry) to make it a worthy addition to any cineaste's bookshelf.

**Set Lighting
Technician's Handbook**
by Harry C. Box
Focal Press, 432 pps., paper.

If you're among those who bemoan the scarcity of well-written, readable technical manuals for movie makers, you should get a bit of cheer from this enlarged and revised edition of gaffer/cinematographer Harry Box's magnum opus. The first edition, published several years ago, was highly praised as a handy reference source for the professional, and served as a good learning tool for the aspiring pro. It also became a textbook in many film schools. This updated second edition is vastly improved and includes new equipment listings and a slew of additional reference tables.

Standard operating procedures, tricks of the trade, trouble-shooting, safety, effective teamwork and set protocol are all given their due. An awesome number of lighting units are described, including peppers, Muscos, helium balloons, synchronized strobos, underwater units, Xenons, fluorescents, and more. All descriptions of old and new accessories are clearly pictured in photos and line drawings.

Fortunately, there's nothing high-flown or mysterious in the presentation of this information, even when it pauses in its discussion of technical matters to examine conceptual aspects of lighting. The writing is straightforward and easily understood. There is a detailed glossary, a list of world power and television systems, a list of manufacturers and distributors, checklists of both equipment and expendables, and other vital information. ♦

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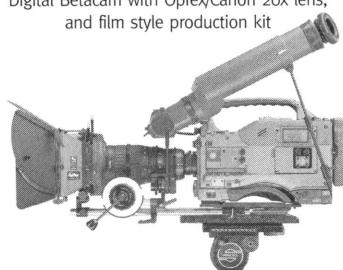
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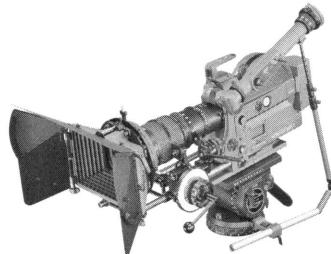
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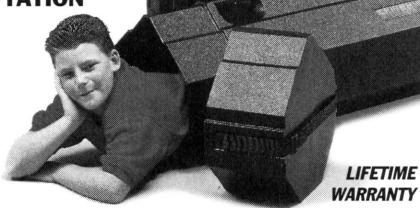
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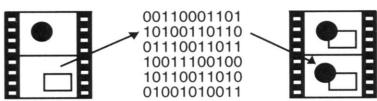
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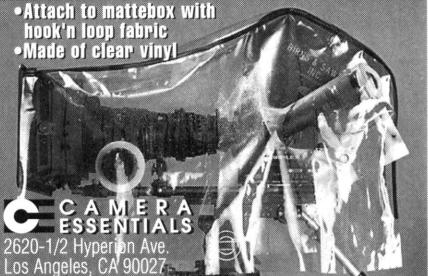
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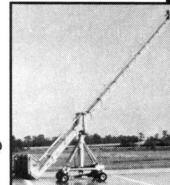
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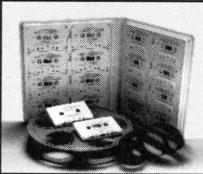
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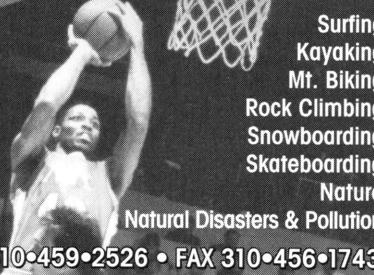


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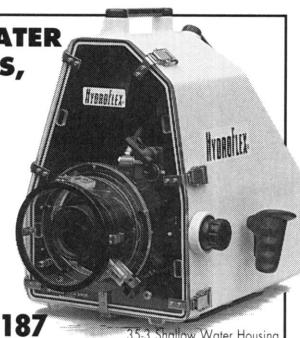
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From the Clubhouse



Lubezki Joins ASC

The latest cinematographer to be inducted into the ASC is Emmanuel "Chivo" Lubezki. A native of Mexico City, he developed photographic aspirations at age 12, when he first began taking black-and-white stills. Lubezki went on to study filmmaking and history at the National University of Mexico City, where he gained his first practical experience as a cameraman by shooting films for his fellow classmates.

Shortly after graduation, Lubezki produced the feature *A Long Way to Tijuana*, and co-produced the Mexican western *Banditos*, which was also his first feature as full-fledged director of photography. Thereafter, Lubezki quickly established himself in the Mexican film industry with the lush imagery he lent to director Alfonso Arau's films *Like Water for Chocolate*, *Miroslava* and *Ambar*. Each of these three pictures earned the cinematographer an Ariel — the Mexican equivalent of an Academy Award. In addition to being the youngest recipient of the award, Lubezki was also the first individual to be honored over three consecutive years. In 1991 — the same year that he won for *Like Water for Chocolate* — he also received an Ariel nomination for his work on *Love in the Time of Hysteria*, Alfonso Cuaron's directorial debut. Lubezki collaborated with Cuaron on several subsequent films, including *A Little Princess* (see AC June '96), for which the cinematographer earned an Academy Award nomination, as well as an upcoming screen adaptation of Charles Dickens' classic novel *Great Expectations*.

Lubezki's television credits include Steven Soderbergh's *The Quiet Room* and Alfonso Cuaron's *Murder Obliquely*; the latter earned him an ACE Award for Best Cinematography in a Dramatic Series. His recent cinematic credits include *The Harvest*, *Twenty Bucks*, Ben Stiller's Gen-X comedy *Reality Bites*, Arau's period romance *A Walk in the Clouds*, and Mike Nichols' comedy *The*

Birdcage. Lubezki is currently filming Martin Brest's *Meet Joe Black*, starring Brad Pitt and Anthony Hopkins.

— Lisa Sibert

ASC at Showbiz West

Those interested in meeting and conversing with various ASC members should visit Booth 20B at the Showbiz West Convention, to be held at the Los Angeles Convention Center from June 13-15. The complete line of ASC products will be on sale — books, T-shirts, hats and bags. Members of the AC editorial staff will also be in attendance throughout the run of the event.

1997 ASC Golf Classic

On Monday, June 16, the ASC will tee off at the Simi Hills Golf Course for the Society's 14th Annual Summer Classic, which will feature a special hole-in-one prize of \$10,000. The tournament will have a "shotgun" start — which means that all foursomes will start simultaneously at 7:30 a.m. on 18 different holes. The event includes a barbecue lunch of tri-tip and chicken sandwiches with trimmings. Participants should arrive at the course between 6 and 6:30 a.m. to sign for carts and join in the camaraderie prior to the tee-off.

There are openings for approximately 144 players, so feel free to invite friends to stroll the links for the day. Reservations will be taken on a "first come-first served" basis. Players do not require a handicap since the Callaway Handicap System will be used to determine net scores. The wrap party will be held at the ASC Clubhouse in Hollywood on Tuesday, June 24, with cocktails and hors d'oeuvres followed by dinner. Trophies for the winners and prizes for all golfers will be awarded as well. Those interested in joining this year's tournament should contact Patricia Armacost at (213) 969-4333 for complete information regarding fees and registration. ♦

Wrap Shot



When he signed on to shoot the 1968 film *Planet of the Apes*, Leon Shamroy, ASC had little to prove, professionally speaking; at the time, his résumé already included a quartet of Academy Awards for *The Black Swan* (1942), *Wilson* (1944), *Leave Her Heaven* (1945) and *Cleopatra* (1963), as well as such diverse films as *The King and I*, *The Agony and the Ecstasy*, *Love Is A Many-Splendored Thing*, *Desk Set*, *The Girl Can't Help It*, *A Tree Grows in Brooklyn*, *The Robe* and *South Pacific*. But the unique cinematographic demands of *Apes* presented a stimulating challenge to an artist regarded by his peers to be "The Cameraman's Cameraman" — plus an opportunity to explode the myth that he was solely an "interiors specialist."

Filled with striking widescreen Panavision compositions, *Apes* would easily prove that point.

This photograph was taken on May 31, 1967 as Shamroy (in dark jacket)

and director Franklin J. Schaffner (behind the camera) plotted an angle on co-stars Charlton Heston and Linda Harrison. The scene, which takes place at the end of the picture, was filmed at Point Dume, a remote stretch of California coastline north of Malibu. Schaffner was persuaded to helm the picture by producer Arthur P. Jacobs, who had spent five years working to bring French author Pierre Boulle's novel *Les Planètes des Singes* (*Monkey Planet*) to the screen.

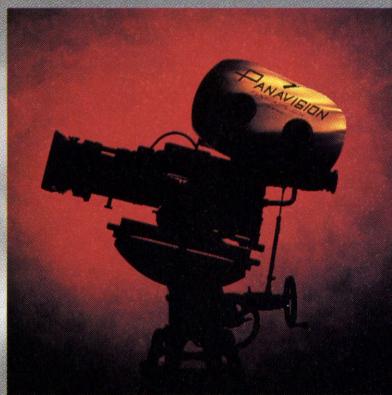
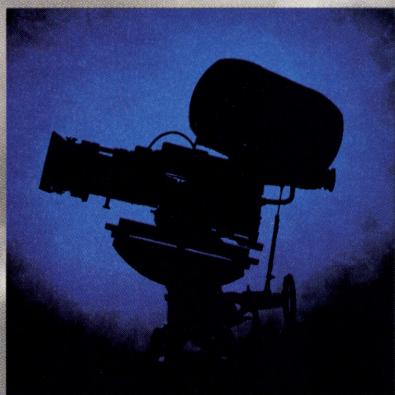
Adapted by *Twilight Zone* creator Rod Serling and Michael Wilson, *Apes* became an instant classic with its allegorical tale of time-traveling astronauts who unknowingly return to a future-flung Earth, where they find that gorillas, orangutans and chimpanzees (convincingly designed by makeup maestro John Chambers) have usurped human dominance.

Perhaps the most haunting scenes in the film depict the astronauts'

trek across a hostile desert. Many of these sequences were shot around the Lake Mead area between Utah and Arizona. The actors were often filmed in silhouette against a threatening sky, with the sun glaring directly into the lens and flaring out.

Shamroy had high praise for his operators on *Apes*, remarking in the April 1968 issue of *American Cinematographer*, "I was lucky to have three of them who were tops — Al Liebowitz, Irving Rosenberg and Paul Lockwood. They did some wonderful work, especially with the handheld cameras. There was one sequence where the astronauts go skidding down a steep bluff. In order to get a subjective shot that would tie in, we improvised a 'sand-sled' made of a piece of corrugated steel and two boards. Lockwood got on it with an Arriflex and we just shoved him down the slope."

— David E. Williams



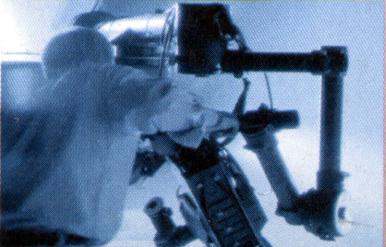
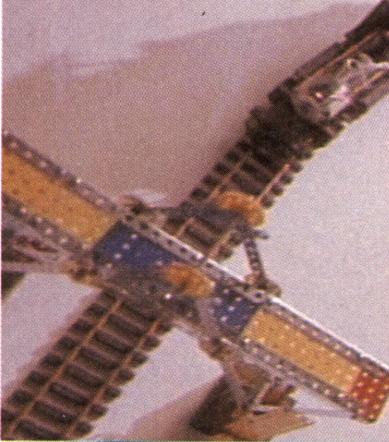
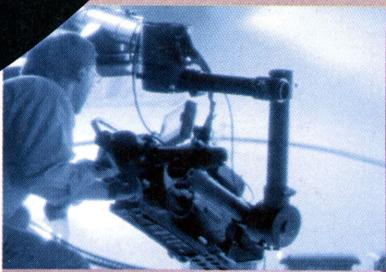
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